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The Impact of Corporate Governance on Working Capital Management in Nigerian Organizations

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2017

Abstract

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by

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MSc, University of Maryland, 2013

Dissertation Submitted in Partial Fulfillment

Of the Requirements for the Degree of

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Abstract

Many Nigerian firms have faced working capital management (WCM) inconsistencies, which have remained a source of tremendous concern in the face of high competition. In this study, the research problem explored was how inefficient working capital policies are still negatively affecting shareholders' wealth several years after the economic crisis, constraining sustainable development. The purpose of this quantitative research study was to examine how corporate governance has affected WCM within Nigerian organizations. The research question was about how corporate governance practices expand WCM efficiency. A random sample of 89 Nigerian organizations was used, and publicly available ethical ratings and financial information data on the companies involved were obtained. This quantitative study utilized a multiple regression methodology to determine the extent to which CEO duality, CEO tenure, board size (BS), and an audit committee (AC) can predict WCM performance. The findings specifically determined that board size and audit committee size were significantly related to WCM, while CEO tenure and CEO duality were not related to WCM. The results were consistent with previous studies suggesting that the impact of corporate governance in Nigerian organizations relates to WCM. The results of this study may help Nigerian organizations adopt and operate an appropriate corporate governance structure that will enhance their organizational effectiveness, aid business managers in allocating resources, and allow them to continue their corporate social responsibility missions of providing services to their communities and transforming society.

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Dedication

Firstly, I thank the Almighty God for affording me the intelligence and enthusiasm that have been so crucial to completing my doctoral journey.

I dedicate this work to my wife, Prisca Njoku, who advanced beyond her role to support me during the many years of my doctoral study, with the sincerest appreciation. Without her encouragement and inspiration, I would not have attained this milestone. I also pay special tribute to my daughter, Cecilia Njoku; my mother, Sabina Njoku; and my sister, Felicia Ndukwe, who were all patient with me and understood that I could not provide them with total support because I had to study and complete my assignments. I pray that my achievement will inspire my family members and children to also pursue education.

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I thank my fellow students and other reviewers who immensely contributed to my study, as their observations helped me build a quality dissertation.

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Chapter 1: Introduction to the Study

Introduction

Since the 2008 recession, the world has witnessed a chaotic financial situation. There was a boom in the economy shortly after the recession, but later, the economy turned sour after the downturn. In Price, Water, and Coopers' (2013) global working capital review, the authors noted that working capital levels had declined by 2% globally, which they said was an economic condition that applied to all industries. Therefore, adequate working capital management (WCM) is essential for all sectors. In the context of this study, I regarded working capital as an efficient use of cash. Al Shubiri (2011) described working capital as current assets (CA) minus current liabilities (CL), noting that it is a trading capital that firms need to meet their short-term financial requirements. In the context of this study, CA included cash and other short-term assets while CL included creditors and other applicable 1-year current liabilities.

Sagner (2014) stated that optimizing working capital components could help reduce the requirement of having liquidity and free cash flow to make future purchases. This is because the efficient use of working capital is fundamental to the continual existence of any organization, as firms in developed and developing countries aim to ensure that they have the necessary cash flow to fund their capital requirements (Agyei & Yeboah, 2011). Recent Nigerian studies have indicated that high promising investments have yielded negative returns for shareholders because of poor corporate governance (Ademola, 2014). Therefore, promoting a high quality corporate governance principle could ensure that firms have adequate control of their working capital assets (Cuomo,

Mallin, & Zattoni, 2015). Numerous experts have stated that corporate governance is a significant determinant in WCM (Goel, Bansal, & Sharma, 2015). During the last decade, corporate governance has received a lot of attention because of certain reforms to deal with the several economic debacles during the last financial crisis. Researchers have attributed the evolution of corporate governance to changes in ownership structure and control (Gill & Biger, 2013). These changes provoked variations that have differed from country to country (Mulili & Wong, 2011).

In this study, I explored CA and CL, but focused on cash because high liquidity exposes management's reckless behavior (see Isshag et al., 2009). Lau and Block (2012) stated that cash is an essential component of working capital that helps organizations stay afloat. Isshag et al. (2009) viewed cash as available funds to invest in capital assets and distribute to a firm's shareholders. Per the Keynesian economic theory, firms hold money for several reasons, including that they have precautionary, speculative, and transaction motives (Gill & Biger, 2013). A transaction motive is the money used to conduct daily business transactions and pay for goods and services (Gill & Shah, 2012). The precautionary motive is the money saved in case of an emergency, while the speculative motive is the money used to pay for any expenses that arise (Gill & Shah, 2012, p. 70). Kim, Kim, and Woods (2012) stated that both the precautionary and transitionary motives could explain a firm's determinant for cash holdings. Having too much cash does not necessarily bode well for an organization; therefore, a surplus of cash could be because of poor corporate governance.

Brealey, Myers, and Allen (2010) stated that the way firms make decisions about financial matters is questionable. This is partially related to the trade-off and pecking order theories. The trade-off theory assumes that firms allocate their resources by comparing debt tax benefits and bankruptcy costs, thereby targeting the optimal debt ratio (De & Banerjee, 2017). The pecking order theory disputes the trade-off theory, noting that firms value the *sequential choice* to the funding sources (Adair & Adaskou, 2015). Adair & Adaskou (2015) further noted that per pecking order theory, external financing should be avoided when there is an internal funding source available.

Though the pecking order theory and the concept of free cash flow have explained patterns of capital requirements, unnecessary cash surpluses might also occur because of poor corporate governance. Afza, Amarjit, and Gill (2013) argued that having proper liquidity facilitated smooth organizational operations and that top management and board members were responsible for setting policies to this effect. Therefore, the board plays a key role in making decisions concerning working capital assets. Poor corporate decisions regarding working capital could adversely impact cash flow and provoke agency problems (Khan & Haque, 2017). Since the inception of Beile and Means' (1996) research on the topic, corporate governance has concentrated on separating ownership from management. This process gave birth to pedals, which metamorphosed into the principal-agent relationship, because of dispersed ownership (Ali, 2014). Yusoff and Alhaji (2012) viewed corporate governance as a channel in which the company's board of directors and top management were both considered to be watchdogs used to reduce conflict concerning the principal-agent relationship. In this context, the top

administrators of an organization are the agents, the owners are the principals, and the board of directors is the monitoring apparatus (Haslindar, Fazilah, & Abdul, 2011). In this study, I focused on the effects of corporate governance on WCM within Nigerian organizations.

In this chapter, I will present the background of the study, a comprehensive description of the problem, and the goal of the research. My research questions and hypotheses were designed to support the goals of the study. I will review the conceptual framework and the definitions, assumptions, scope, delimitations, and limitations. Then I will explain the significance of the research, emphasizing how it could lead to social change in certain parts of society. I will conclude the chapter with the definitions of terms and a summary.

Background of the Study

Strong corporate governance sets the stage for effective financial management decisions. Corporate governance implies that companies should carry out strategies that are compatible with their short, medium, and long-term goals and their shareholders' interests (Achchuthan & Rajendran, 2013). WCM is a short-term mechanism that is considered vital to making financial management decisions, and practitioners regard working capital as the strategy used to fill the gap between CA and CL (Tran et al, 2017). It is fundamental for organizations to ensure smooth daily operations and take advantage of occasional opportunities.

Researchers have highlighted three strategic approaches to working capital financing: maturity matching, or hedging; the conservative strategy; and the aggressive

strategy (Talonpoika et al., 2016). In the traditional strategy, Talonpoika et al. noted that liquidity is important because long-term funds are used and there are chances to take advantage of immediate business opportunities. Also, profitability is low, with respect to working capital decisions because of long-term fund costs (Aktas, Croci, & Petmezas, 2015). Interest rate costs also reduce profitability because of minimization (Aktas, Croci & Petmezas, 2015). The aggressive approach has low liquidity because of its greater dependency on short-term funds (Afza & Nazir, 2007). The aggressive method does not use idle capital but saves debt interest costs. Afza & Nazir (2007) also noted that the hedging strategy strikes a balance between liquidity and the value of unused funds. The average profitability maintained in the hedging strategy is greater than that maintained in the conservative approach but is less than that maintained in the aggressive approach. Therefore, the hedging strategy moderates profitability and stabilizes interest costs. Working capital impacts liquidity, which creates value for firms (Bagchi & Khamrui, 2012).

Researchers have asserted that sustaining solvency is vital to maintaining competitive advantages (Ivanovic, Baresa, & Bogdan, 2011). Lau and Block (2012) used the Edgar database to collect data from the Standard and Poor 500 to determine whether the involvement of founders and family members fundamentally affected a firm's value and cash flow. The authors found that pioneered companies held higher basic levels of cash than family firms. Gill and Shah (2012) stated that CEO duality, board size (BS), and the audit committee (AC) played important organizational roles in maintaining and controlling adequate levels of working capital. Raheman, Afza, Qayyum, and Bodla

(2010) said working capital was a central determinant for survival and profitability. Nigerian firms should build better frameworks for WCM, establishing corporate governance practices to solve their ongoing problems. Researching corporate governance practices among Nigerian firms could add to the literature on WCM in organizations.

Problem Statement

Many Nigerian firms have faced WCM inconsistencies, which have remained a source of tremendous concern (Ademola, 2014; Luqman, 2014). Price, Waterhouse, and Coopers (2013) noted that working capital levels have deteriorated by 2% globally, a situation that has applied to all industries (Erumban & Vries, 2014). About 70% of Nigerian firms have failed in the past 10 years because of bad WCM (My Financial Intelligence, 2013). The general problem I addressed in this study was the lack of literature on the impact of corporate governance on WCM. Nadiri (1969) initiated a study on adequate levels of real cash balances, but a deeper understanding of the impact of corporate governance policies on WCM is needed (see Gill & Biger, 2013). The specific problem that I addressed in this study was the lack of knowledge in optimizing WCM, especially in minimizing working capital requirement to improve the relationship between corporate governance and the efficiency of WCM within Nigerian firms. I employed a correlational design in this quantitative research study to investigate the relationship between corporate governance and WCM among 89 companies listed on the Nigerian Stock Exchange (NSE).

Purpose of the Study

My objective in this quantitative research study was to examine the impact of corporate governance practices on the efficiency of WCM within firms listed on the NSE. I used a correlational and nonexperimental research design for this study. I obtained secondary data from the NSE to aid in the analysis of the results. The dependent variables of this study were CA, CL, current ratios (CR), and the cash conversion cycle (CCC). The independent variables were CEO tenure, CEO duality, BS, and the AC, while the control variables were sales growth (SG), firm size, firm performance, and internationalization of the firm. My results provided insight into how corporate governance might significantly enhance WCM efficiency. The results of this study may also help financial managers and investors to better understand some of the essential characteristics of corporate governance practices.

Research Questions and Hypotheses

In this study, I explored the impact of corporate governance on WCM within companies listed on the NSE. I chose this topic because WCM is a significant component of an organizational system that should be seriously considered at the governance level (Gill & Biger, 2013). To guide this study, I developed the following overarching research question: How do corporate governance practices impact WCM efficiency?

Conceptualization

Figure 1 provides a conceptual model that describes the fundamental aspects of corporate governance practices. The model illustrates the effectiveness of corporate

governance practices in the making of working capital assets decisions. I formulated the model to address the research questions and objectives of the study.

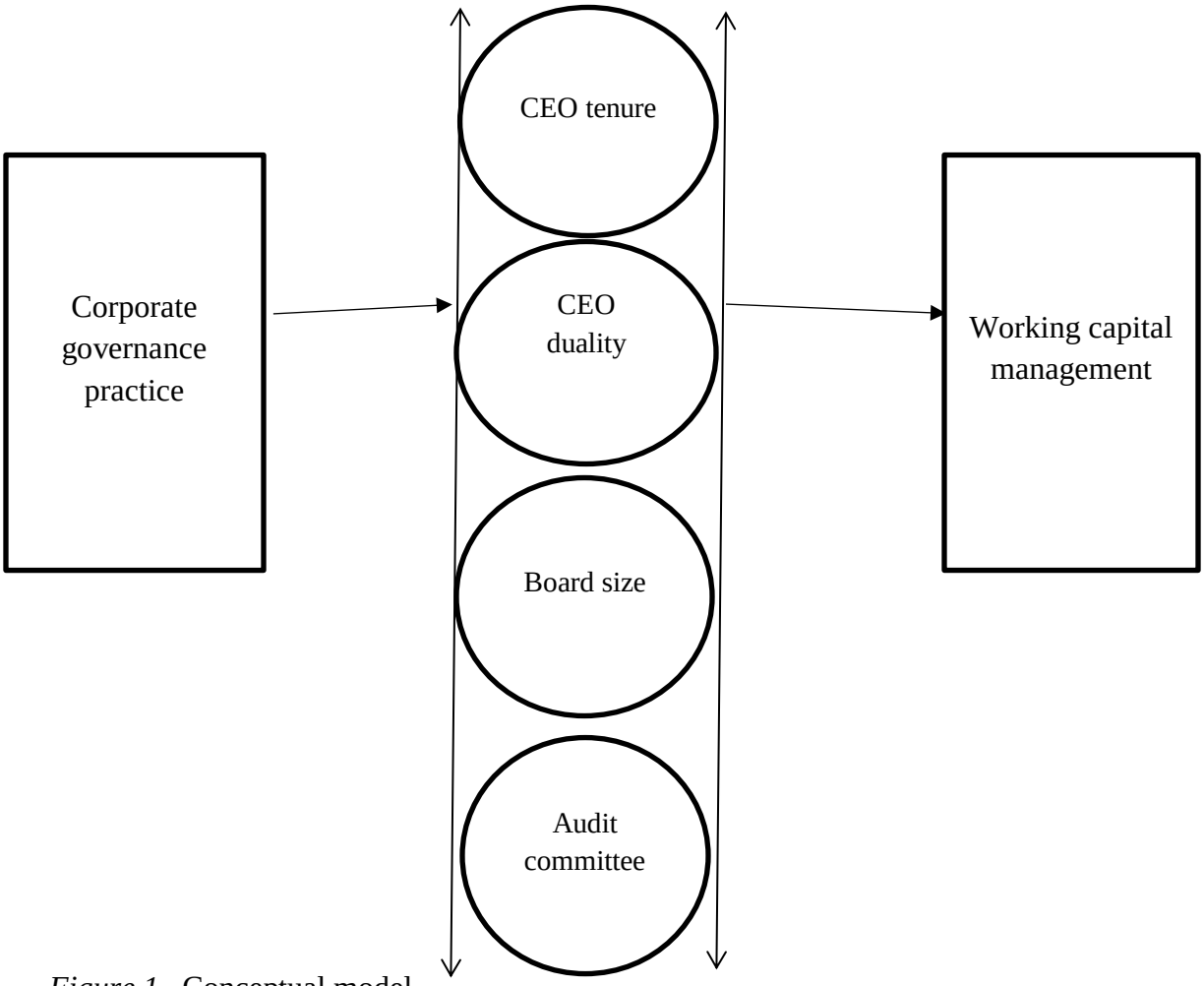

Figure 1. Conceptual model.

Design of the Variables

I employed a correlational research design in this study, selecting 85 Nigerian companies listed on the NSE within a 2- year time frame, from 2013–2014.

Table 1

Dependent Variable Measurement

Variable Type	Concept	Symbol	Measure
Dependent	Current assets	CA	Total short-term assets converted into cash within one year
Dependent	Current liabilities	CL	Total debt due to creditors within one year
Dependent	Current ratio	CR	Current assets divided by current liabilities
Dependent	Cash conversion cycle	CCC	Days - A/R þ no. of day's inventory 2 no. of days A/P
Independent	CEO tenure	TN	Total number of years as a CEO
Independent	CEO duality	CD	Allocate 1 if chairperson and CEO and Allocate 0 if chairperson is not also CEO
Independent	Board size	BS	The make-up of the board of directors
Independent	Audit committee	AC	The make-up of the audit committee members
Control	Sales growth	SG	Current year sales 2 previous year sales divided by previous year sales value
Control	Firm size	FS	The total log of average assets

Notes: m – error term*; GROWTH* – The sales growth of firm *i* in *t* time

CA, CL, CR, and the CCC were critical factors in determining WCM. MDT, MDD, BS, and the AC were deemed significant variables to define governance practices.

Research Questions and Hypotheses

Research Question 1: What is the relationship between corporate governance practices and CA?

$H_0$1: There is no association between corporate governance practices and CA.

$H_1$1: There is an association between corporate governance practices and CA.

I tested Hypothesis 1 by running the following multiple regression equations:

$$CA = \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + eit1)$$

Research Question 2: What is the relationship between corporate governance practices and CL?

$H_0$2: There is no association between corporate governance practices and CL.

$H_1$2: There is an association between corporate governance practices and CL.

I tested Hypothesis 2 by running the following multiple regression equations:

$CL = \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + eit2$

Research Question 3: What is the relationship between corporate governance practices and CR?

$H_0$3: There is no association between corporate governance practices and CR.

$H_1$3: There is an association between corporate governance practices and CR.

I tested Hypothesis 3 by running the following multiple regression equations:

$CR = \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + eit3$

Research Question 4: What is the relationship between corporate governance practices and the CCC?

$H_0$4: There is no association between corporate governance practices and the CCC.

$H_1$4: There is an association between corporate governance practices and the CCC.

I tested Hypothesis 4 by running the following multiple regression equations:

$CCC = \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + eit4$

Statistical Model

In this quantitative research study, I sought to determine if there was a relationship between CEO tenure, CEO duality, BS, AC, and WCM components. I employed a correlational design to investigate the relationship between several independent and dependent variables. Multiple regression analysis was the most suitable statistical model to explain the relationship between various independent and dependent variables. Hence, I used the multiple regression model to test the hypotheses of the study and take the control variables, such as SG, firm size, and firm performance, into consideration.

Independent and Dependent Variables

I structured the hypotheses and research questions to investigate if a relationship existed between corporate governance and WCM. The independent variables for the hypotheses were CEO tenure, CEO duality, BS, and the AC. The dependent variables for the hypotheses were CA, CL, CR, and the CCC.

To calculate CEO tenure, I considered the number of years the individuals served as CEOs. For CEO duality, a value of 1 was assigned if the same person occupied the position of the chairman of the board and the CEO, and a value of 0 was assigned if one person did not occupy both positions. BS was calculated according to the number of directors serving on the board, while the AC was calculated according to the number of AC members. The measurements applied to the independent variables were also applied to the hypotheses and the alternative hypotheses.

To measure the dependent variables in the first hypothesis, I used the CA to estimate the value of all items converted into cash within one year. To measure the dependent variable in Hypothesis 2, I used the CL to gauge the amount due to creditors within one year. To measure the dependent variable of the CR in Hypothesis 3, CA was divided by CL. The CCC in Hypothesis 4 was used to measure days' inventory outstanding (DIO) plus days sales outstanding (DSO) minus days purchases outstanding (DPO). I will explain the measurements in further detail in Chapter 3.

Theoretical Framework of the Study

The theoretical framework serves as a barometer to direct a research study (Thorne, 2016). By using a theoretical framework, I could hypothesize and describe the meanings of CEO tenure, CEO duality, BS, and AC as attributes of sound corporate governance that affect shareholders' wealth and resource management. Gill and Shah's (2012) corporate cash holdings, tradeoff, pecking order, free cash flow, and the corporate governance theory served as lenses to guide this study, in which I examined the impact of corporate governance on WCM within Nigerian organizations. Trade-off approach implies that firms choose how to allocate their resources by comparing the debt tax benefits and bankruptcy costs, thus aiming at the optimal debt ratio (Gill & Biger, 2013). The pecking order theory disputes the trade-off approach, noting that firms consider the sequential choice to the funding sources (Dinh Phạm Anh, 2013). The pecking order theory states that external financing should be avoided when there is an internal funding source available, to stop increased equity when a firm can engage in new debt obligations (De & Banerjee, 2017). Gill and Shah's theory of corporate cash holdings states that

though accounts receivables, inventory, and accounts payables are critical, cash is vulnerable because of management's reckless behavior.

According to Keynesian economic theory, firms hold money for several reasons, including that they have precautionary, speculative, and transaction motives (Rezende, 2015). A transaction motive is the money used to conduct daily business transactions and pay for goods and services. The precautionary reason is the money saved in case of an emergency, while the speculative motive is the money used to pay for any bargain expenses that arise (Gill & Shah, 2012). Kim et al. (2012) stated that both the precautionary and transitionary motives could explain a firm's determinant for cash holdings. Gill and Shah (2012) agreed with Kim et al. (2012), reporting both precautionary and transitionary motives could explain a firm's determinant for cash holdings, and further stating that the separation of control and CEO duality could impact cash policies within specific organizational cash holding levels. In this study, the explanatory variables were similar to those used in other studies on WCM. I included explanatory variables in this study such as firm size, internationalization of firms, SG, cash holdings, the CCC, firm performance, accounts receivables, inventory, accounts payables, cash conversion efficiency, and the CR of the sample firms.

There is a need for researchers to identify governance models that Nigerian organizations could adopt to enhance their overall usefulness and performance levels. Kajananthan (2012) found that American organizations, specifically manufacturing organizations with governance structures, performed better than companies without corporate governance structures (Ianniello, 2015). However, the impact of corporate

governance on WCM efficiency within Nigerian organizations has not been fully explored. According to Ademola (2014), the challenges that many Nigerian firms have experienced, in relation to working capital inconsistencies, have remained an ongoing source of concern. Therefore, I explored the four components of corporate governance (CEO tenure, CEO duality, BS, and the AC) to help build an ideal management model for Nigerian companies.

I did not attempt to establish causation in this quantitative study related to how corporate governance impacts working capital efficiency because establishing causation involves incorporating other variables related to cultural, legal, business, social environment, and many other factors. Therefore, I did not establish all the variables that could cause working capital efficiency. In Chapter 3, I will discuss the research design, data resources, financial measurement techniques, statistical data analysis, and statistical models of this study.

Nature of the Study

Using a quantitative research approach, in this study I analyzed available secondary data to document the relationship between CEO tenure, CEO duality, BS, the AC, and WCM within Nigerian organizations. My goal was to clarify questions regarding the relationship between CEO tenure, CEO duality, BS, the AC, and WCM within Nigerian organizations. It was advantageous to utilize secondary data for this study concerning financial statements and corporate governance because of the extensive availability of data on Nigerian organizations.

I collected financial data on the 85 organizations chosen for the study from the NSE database and organizational websites. Since the study data were quantitative in nature, it was analyzed through multiple regression, using SPSS.

Definition of Terms

AC: AC is the operating arm of a company's board of directors that oversees the administration of financial reports and disclosures. AC members are integral members of a company's board because they are responsible for rolling out policies to improve financial reporting. The AC members and the chairperson are selected from a company's board. The AC sustains communication with the chief financial officer and has the authority to perform audits if accounting practices are worrisome or if there are issues with company personnel. The AC also monitors policies, oversees external auditors and regulatory compliance, and develops risk management policies with administrative management (Nuryanab & Islam, 2011).

BS: Lipton and Lorch (1992) stated that the size of the board is a company's preference. Therefore, within the framework of this study, a BS of three members is reasonable, but some states also permit boards that consist of a single board member. Board members function as representatives to reflect their constituency.

CCC: The CCC measures the length of time in days that a firm ties up a net dollar input in the purchasing, making, and selling of goods and services, before converting the resource inputs into cash flows (Das, 2016). A low number, in comparison to the industry average, indicates a strong cash flow creation from internal operations. The lower the number, the better. The metrics examine the length of time required to sell

inventory, the length of time needed to receive money from customers, and the length of time needed for a company to pay a bill without incurring late penalties.

CEO duality: CEO duality exists when a company's CEO serves as a managing director and the chairperson of its board (Lawal, 2012).

Corporate governance: Scholar practitioners define corporate governance as the procedures and processes through which organizations are directed and controlled. It is a system of rules and processes that reflects how a company is directed and managed. Corporate governance enables a corporation to develop mechanisms for monitoring policies, making decisions, and responding to a sound regulatory environment. The management techniques allow organizations to pursue objectives, align stakeholders' interests, and eventually distribute the rights and responsibilities of the board of directors, managers, employees, shareholders, and other parties (Ballinger & Marcel, 2010). Corporate governance also emphasizes the benefits of having sponsors in an organization. Ballinger & Marcel noted that these sponsors might include management, shareholders, suppliers, customers, financiers, government, and the community.

CA: CA are defined as balance sheet items that describe the value of all items that can be converted into cash within one year or consumed in the operating cycle (Delen, Kuzey, & Uyar, 2013). The operating cycle constitutes the time frame between acquiring raw materials to produce and selling goods. Analysts include CA on the balance sheet when they are converted into cash. In this study, CA included cash and cash equivalents, accounts receivables, inventory, marketable securities, prepaid expenses, and other near

cash equivalents. On balance sheets, liquidity levels usually display CA (Damar, Meh, & Terajima, 2013).

CL: CL are debt accounts in the balance sheet that are due within one calendar year and include short-term debt obligations, accounts payable, accrued liabilities, and other financial obligations. CL are bills that must be paid to creditors and contractors within a short period. Usually, companies take out CA to defray the costs of their CL. Analysts adopt the CR or the quick ratio to determine if a company can cover its current obligations. Since companies must fulfill these requirements in the future, this provokes a corresponding liability. In summary, liabilities that are due within one calendar year or due on demand are described as CL in balance sheets (Hoskin, Fizzell, & Cherry, 2014).

CR: The CR is a financial and efficiency ratio that gauges a company's ability to pay its outstanding short-term and long-term obligations. Financial analysts divide the total of CA by the sum of a company's CL to decide whether they should invest in a project. The CR is adopted to highlight a firm's ability to pay back its obligations with its assets. Analysts assert that a higher CR indicates that a company could pay its financial obligations, since it has a considerable proportion of asset value to liability value. A ratio under 1 could indicate a company's inability to pay its financial obligations, because this implies that it has a considerable proportion of debt value to asset value.

DIO: The DIO is an inventory that expresses the amount of stocks in days of all the costs of goods that are sold. It shows the value of inventory the organization has tied up in stock across its supply chain. In other words, DIO shows how long it takes to turn

inventory into sales. This measure can be aggregated for all inventories, works in progress, and finished goods. A reduction in the day's inventory implies that there has been an improvement in working capital and an increase in deterioration. Firms use this measure monthly (Kroes, & Manikas, 2014).

DPO: The DPO is a measure of a business's outstanding payment liability. The DPO metrics measure how long it takes a firm to pay its invoices from trade creditors, such as the firm's external suppliers. This working capital metric is important because it indicates the accepted payment terms that a company follows. Businesses use this metric on a quarterly or yearly basis. Most DPO takes about 30 days, indicating that it takes an average of 1 month to pay vendors (Yazdanfar, & Öhman, 2014).

DSO: The DSO is the average number of days it takes a company to be paid following a sale. It is a relative means of a debtor business process. The DSO is usually determined monthly, quarterly, or annually, and is calculated by dividing accounts receivables within a given period by the sum value of total credit sales within the same period, and then multiplying this result by the number of days within the same period that is being measured (Kroes, & Manikas, 2014).

WCM: WCM is the monitoring and employment of the two most fundamental aspects of working capital, CA and CL or short-term assets and short-term liabilities. WCM is the totality of the management of cash, debtors, prepayments, stocks, creditors, accruals, and short-term loans to facilitate profitability and ensure that an operation runs smoothly (Tran, Abbott, & Jin Yap, 2017).

Assumptions

To conduct this research study, I made the following assumptions:

- The secondary data used were accurate and complete.
- The information provided by the NSE and the participating companies was correct, reliable, and timely compared to the self-reported management information of the selected companies.
- The social ratings and the financial data of the involved companies were complete and accurate.

Scope and Delimitations

I confined this study to Nigerian organizations. This geographic area was chosen for two reasons. Firstly, it was chosen because Nigeria is a developing nation that lacks a comprehensive corporate governance framework. Secondly, it was chosen because I am from Nigeria, and it was convenient for me to conduct the study there. This study was further confined to companies listed on the NSE and limited to the period from 2013–2014. Researchers must consider and anticipate limitations when developing their research plans to reduce the effects of the noted limitations (Patton, 2003). Using secondary data that was not consistent with Nigerian organizations could have potentially introduced errors to the study. For instance, Nigerian organizations are not used to practicing CEO duality. The results of this study can only be generalized to Nigerian organizations. Also, in this study I examined the relationship between BS, CEO tenure, CEO duality, and working capital efficiency; some variables, such as organizational leverage and CEO identification, were not necessarily present in the analysis model.

Future studies could explore other variables and make different assumptions to expand this area of research.

Limitations

In this study, I investigated the impact of corporate governance on WCM in Nigerian organizations, focusing on BS, CEO tenure, CEO duality, and the AC. The sample size consisted of 89 large organizations listed on the NSE over a 2-year period. I used public data reported on the NSE and on participating companies' financial statements to compute a statistical analysis, employing SPSS software. The results of this study could not be confidently used to explain situations concerning organizations in other countries.

Significance of the Study

This result might contribute to the literature on the factors that enhance WCM efficiency and the relationship between factors of corporate governance and WCM efficiency. The findings might be helpful for financial managers, investors, consultants, researchers, financial management, and other stakeholders to use as evidence that corporate governance plays a useful role in improving WCM efficiency. The results of my study might also assist Nigerian financial organizations and practitioners alike to develop appropriate governance mechanisms that would promote their corporate performance and satisfy oversight regulations. The findings from this study could also provide a better understanding of how managing different working capital assets might positively influence organizational shareholders. By examining CEO tenure, CEO duality, BS, and the AC, and the impact of corporate governance on WCM, the results of

this study could potentially help Nigerian organizations more efficiently manage their finances. Therefore, this study might help Nigerian organizations adopt and operate appropriate corporate governance structures that could enhance their overall effectiveness, aid business managers in allocating resources, and allow them to continue their corporate social responsibility missions of providing services to their communities and transforming society.

Summary and Transition

In this chapter, I presented the background for the study in the context of Nigerian organizations. I identified the research problem within the current empirical literature, with a description of the shortcomings of prior research works. I stated the purpose of the study and explained the research variables and the two research questions and hypotheses that guided the inquiry. The conceptual model in the study addressed the board of directors' proper control and monitoring effectiveness, as informed by the theoretical framework of stewardship. I explained and justified the intervening variables believed to mediate the results between CG theories and WCM. The study rested on some significant assumptions which I identified and described. I also defined the scope, delimitations, and the significance of the research to necessitate a controlled analysis. I ended the chapter by stating that the result of the study could not be confidently used to explain situations concerning organizations in other countries.

In Chapter 2, I will review the discrepancies in prior studies concerning the relationship between CG and WCM efficiency within Nigerian organizations. I ensured that the sources cited were mostly within the last five years, as stipulated by Walden

University. I commence the literature review with a brief introductory explanation of how the resources used for the review were acquired, then describe the relevant topics covered, including WC, WCM components, WCM measures, CG theories, and the recent empirical findings on CG-WCM efficiency. In each of these topics, I distinguish the sub-themes, gave adequate analysis for their evaluation, and provided a reason for their relevance to the study. The end of the chapter analyzes the identified gaps and how I addressed these differences in the research study.

In Chapter 3, I will describe the methodology for conducting the research and the considerations of the chosen design. I will start the chapter by examining the accepted paradigm of the study, then discussed the design of the research and defined the dependent, independent and control variables of the study. I identify the features of the target population, supported by the description of the sampling method and the sampling frame that guided how I selected the sampling items. Also, I describe the instrumentation, data collection procedures, and data analysis method taking into considerations the reviewed literature. Finally, I present the four hypotheses that guided the research and justify their inclusion.

Chapter 2: Literature Review

Introduction

In this chapter, I will review prior studies on corporate governance and WCM efficiency. The review of the literature will begin with general information concerning WCM and narrow to specifically focus on the topic at hand. In this chapter, I will also discuss corporate governance issues related to CEO duality, CEO tenure, AC, and BS, and will focus on working capital policies. The literature review will include the relationships between the dependent variables, CA, CL, CR, and the CCC, and the independent variables, CEO tenure, CEO duality, BS, and the AC, and a discussion on the impact of corporate governance on Nigerian organizations. In this section, I also discuss the concept of WCM, focusing on reasons for controlling and addressing the entrenchment of corporate governance on organizational structures. This chapter will also include a discussion of the theories that I used as the theoretical framework for the study. In this chapter, I will also address corporate governance themes as they are related to WCM efficiency within organizations. As a whole, I will review existing studies, highlighting gaps in the current literature that I addressed with this study. The keyword search terms I used in this literature review included: *CEO tenure, CEO duality, BS, AC, the board of directors, CR, CA, CL, cash conversion efficiency, firm's performance, accounts receivables, inventory, accounts payables, SG*, and *corporate governance*.

Literature Search Strategy

I used several databases within the Walden University Library, such as Business Source Complete/Premier, ABI/Inform Complete, Emerald Management Journals, and

Sage Premier, to find relevant research studies to review. The literature review will only include articles published within the last 5 years; however, since there was a lot of research on WCM, studies that were more than 5-years-old were also reviewed to paint a clearer picture of the theories underlying the study (see Krause, Semadeni, & Cannella, 2013). I used advanced search options to find this literature, such as searching the Thoreau Multiple Databases using the Boolean operation on subjects such as *working capital, WCM, working capital components, working capital measures, working capital performance, corporate governance,* and *corporate governance theories*. I also used resources relevant to the theoretical and empirical growth of WCM and corporate governance constructs.

Working Capital

Economic literature and empirical evidence concerning working capital are very scant. Tanwar and Arora (2014) defined working capital as the funds an organization needs for its daily operations. Sagner (2014) said working capital was the financial health of an organization and connected it to profitability and growth. Talonpoika, Karri, Pirttila, and Monto (2016) described net working capital as CA less CL. Operational working capital consists of inventories, accounts receivables, and accounts payables, while financial working capital includes the net working capital that is not tied into operations, such as cash (Knauer & Wohrmann, 2013). After the financial crisis, working capital research boomed and Pirttilä (2014) linked this to the increased study of operational working capital.

Operational working capital components include inventories, accounts payables, such as money to pay suppliers, and accounts receivables, such as payments received from business partners after sales (Talonpoika et al., 2016). Proper working capital entails adequate financing for cash receivables and net of inventory payables (Deloof, 2003). The proportion of receivables and payables occasionally changes during the money management circle (Bendavid, Herer, & Yucesan, 2017). The requirements of working capital help determine the profitability of a firm and the impact of financing and investing decisions (Enqvist, Graham, & Nikkinen, 2014). Fewer working capital requirements necessitate less long-term investments and free more cash for company shareholders (Wasiuzzaman & Arumugam, 2013). On the other hand, Wasiuzzaman, & Arumugam noted that less working capital could lead to lost sales and profitability.

Working Capital Components

CA

Jain, Singh, and Yadav (2013) stated that CA management is meant to be the goal of WCM. Therefore, CA management needs attention when funds are limited. CA are balance sheet accounts that describe the value of all items that analysts can convert into cash within one year (Nobanee & Abraham, 2015). Analysts include CA on balance sheets when they are converted into cash.

Managing CA by controlling the proportion of their components is crucial to a business' health and its ability to meet its short- and long-term cash needs. Jain et al. (2013) stated that the performance of a firm relies on its CA management. Talonpoika et al. (2016) noted that reducing receivables requires strict collection policies and fewer

credit sales. Many businesses now invoice as much as possible, and do not pay attention to receiving invoiced goods in the future (Singh et al., 2017). These conditions have allowed credit organizations to thrive because institutions have been unable to recover these funds after the terminal credit periods end. Singh et al. (2017) noted that reduced receivables might cause a firm to increase capital inflows and decrease sales and profits. Maximizing account payables by using longer loan windows from suppliers might also result in companies receiving poor quality materials that could lead to lost sales; therefore, to sustain CA and increase growth, companies must aim to balance the best proportions of their components to achieve profits to finance long-term capital projects (Jain et al., 2013). In this study, CA included short-term assets, such as receivables, inventory, and other assets, which companies could sell or consume within an operating cycle or fiscal year, whichever is longer.

Accounts receivables. Accounts receivables occur when companies sell products or goods on credit rather than immediately collecting cash (Singhania, Sharma, & Rohit, 2014). The process is used to build cordial relationships with customers and is an alternative to cost reduction (Cheng & Pike, 2003). The process of selling goods on credit comes at a price; however, as capital gets tied up. Customers create risks when they are unable to redeem debts as their loan periods elapse and because of their inability to redeem invoices, in accordance with the agreed upon terms of their transactions (Ramiah, et al., 2016). Ramiah, et al. (2016), went ahead to assert that the process highlights the value that firms place on risk reduction and customer satisfaction, as they incorporate different policies on what they consider to be the greatest benefits. Default is

predominant within European countries (Hilscher, Pollet, & Wilson, 2015). Default problems caused organizations to reduce the number of contractual days and the duration of payment (Li & Tang, 2016). The economic recession also revealed that most of the problems encountered in this period occurred because organizations were unable to determine if their customers could pay them, which resulted in default and bankruptcy (Hilscher & Wilson, 2016). Good credit administration involves credit risk assessment, credit granting, accounts receivables financing, credit collection, and credit risk bearing (Nehf, 2017). Organizations should emphasize the need for appropriate credit policies to be put into place through different mechanisms, such as factoring and issuing collateralized debt (Karminsky & Polozov, 2016).

Inventory. Inventory is a company's raw materials, supplies, and works in progress used in finished goods (Muller, 2011). Firms must have appropriate levels of stock, as it is critical to their performance because improved inventory management is intimately related to improved financial results (Shin, Ennis, & Spurlin, 2015). Therefore, production schedules dictate proper inventory levels. Inventory is a component of a firm's CA but is expensive to maintain when businesses wait too long to convert it into sales (Shin, Wood, & Jun, 2016). Kim and Chung (1990) proposed "the modified square root formula" to evaluate inventory (p. 388). Organizational stock differs, as organizations possess different types of stock. Kim and Chung (1990) further noted that retailers might refer to their inventory as finished goods because they do not add value to the manufacturing process. A manufacturing firm's inventory might consist of raw materials and finished goods that were produced and are available for shipment

(Berk & Gurler, 2016). When CA are grouped into their most liquid form, inventory is also grouped into its most liquid form; some stock types are more liquid than others (Preve & Sarria-Allende, 2010). Preve and Sarria-Allende argued that a large ship could be less liquid than a bag of potatoes in a company's inventory. Inventory management, therefore, could be defined as the process of preparing, directing, and controlling inventory to maximize an organization's cash flow and profitability.

Organizations with well-planned inventories have excellent reputations, meet variations in supply and demand of raw materials, and enable flexibility in the production process (Feng et al., 2014). The optimal inventory is the advantage of the economic order quantity, such as the result of ensuring a balance between the cost of ordering goods and holding inventory (Chen, Cardenas-Barron, & Teng, 2014). Organizational inventory policies might differ for various reasons. Some organizations might hold stocks for larger capital retention, while others might hold little inventory to avoid tying down capital.

CL

CL are short-term debt obligations that a company must pay within a year (Nobanee & Abraham, 2015). CL constitute debt accounts in the balance sheet that are due within 1 calendar year and include short-term debt obligations, accounts payables, accrued liabilities, and other financial obligations (Lyngstadaas & Berg, 2016). CL are bills that must be paid to creditors and contractors within a short period. Usually, companies take out CA to defray the costs of their CL (Konak & Güner, 2016). Analysts adopt the CR, or the quick ratio, to find out if a company can cover its current obligations

(Bibi & Amjad, 2017). Bibi & Amjad (2017) noted that since companies must fulfill these requirements in the future, this provokes a corresponding liability. In this study, CL included accounts payables that are within one calendar year and short-term debt obligations that are due on demand.

Accounts payables. Talonpoika et al. (2016) described accounts receivables as a process created when customers pay for transactions on credit. Accounts payables are the opposite of accounts receivables. Talonpoika et al. (2016) asserted that account payables exist because manufacturers sell goods to organizations on credit. Organizations desire accounts payables because they create money and release cash liquidity to pay for goods or other pressing needs (Desai, Foley, & Hines Jr., 2016). Firms create space for liquid funds through credit bargaining (Kaiser & Young, 2009). Creating accounts payables could also lead to the reduction of transaction costs and provide quality assurance for a supplier's products (Moodley, Ward, & Muller, 2017). Some dealers offer discounts to customers to collect early payment as Kaiser & Young noted. In contrast to this, buyers could also delay paying for goods and services to reduce working capital in the short-run.

Short-term debt. Kahl, Shivdasani, and Wang (2015) described short-term debt as a significant component of a firm's capital structure that could take the form of either bank debt or non-intermediated short-term debt. Short-term debt is the obligation for a company to pay within a year or money that a firm has borrowed for less than one year (Konig & Pothier, 2016). Konig and Pothier (2016) further noted that short-term debt often comes in the form of a line of credit that the company extends at its own discretion, and typically, the company adopts the proceeds for a short-term period. At times, the

amount of long-term debt that a company must extinguish within a year must be combined into this line of debt (Kahl, Shivdasani, & Wang, 2015). Short-term borrowing must be taken seriously, especially when a corporation is in financial distress and needs to pay back an enormous number of dividends to shareholders (Konig & Pothier, 2016). In this study, short-term liabilities included accrued expenses, short-term notes payables, and income tax payables.

CR

O'Mara (2015) described CR as a business' ability to meet its short-term financial obligations using short-term assets. The CR is a financial and efficiency ratio that gauges a company's ability to pay its short-term and long-term outstanding obligations (Salam et al., 2016). Kirkham (2012) stated that CA are an indicator of a company's liquidity. In other words, CA that are associated with some CL provide leeway for companies to settle their outstanding obligations. Salam et al. (2016), noted that professionals often compare their CR to that of other businesses in the same industry and to trends for a given company over time, to determine if the CR is improving or deteriorating over time. To determine a company's ability to invest in a project, financial analysts divide its total amount of CA by the sum of its CL.

The various factors of WCM that have been described are important for sustaining an organization. If firms managed these components well, they would have funds that could be used to finance long-term projects. Many firms have suffered setbacks because of poor WCM, subjective decision-making, and ad hoc strategies concerning WCM (Khoury et al., 1999).

Working Capital Measures

Various working capital measures provide different perspectives on working capital. These perspectives are used to make financial decisions, and, therefore, variety is needed for proper reporting (Talonpoika et al., 2016). Marttonen, Viskari, and Karri (2013) mentioned three measures of working capital, including position measures, leverage measures, and activity measures. In this study, I focused on the position method, which is used to measure net working capital, and the activity method, which is used to report operating working capital. Different working capital measures have grown over the years, thereby changing the notion of including working capital as part of liquidity.

Net Working Capital Measures (NWCM)

Practitioners typically express the net working capital rule in current and quick ratios. The NWCM is a static measure that presents a general view of NWCM. Talonpoika et al. (2016) noted that practitioners used ratios to measure working capital because of their simplicity, and argued that using financial ratios was no longer relevant in the dispensation in estimating working capital. The current and quick ratios are typically used in financial statement analyses, and, therefore, could provide views of net working capital. However, Petersen and Plenborg (2012) asked if the CA could ever be used to cover short-term liabilities. The CR divides CA by CL, while the quick ratio divides cash, securities, and receivables by CL less advance payments. Analysts adopt the quick ratio when they are uncertain if CA should be liquidated in their books. As earlier stated, working capital can be described in many ways, and the working capital

turnover ratio is the most recognized ratio (Talonpoika et al., 2016). Working capital turnover has been defined as sales divided by net assets, and it could be used to describe a company's efficiency in producing sales.

Operating Working Capital Measures

Operating working capital indicates cycle times and measures the effectiveness of WCM. The operating working capital sheds light on accounts receivables, accounts payables, and inventory and could be regarded as the only effective capital measure used in managerial decision-making (Grosse-Ruyken, Wagner, & Jönke, 2011). Hofmann and Kotzab (2010) stated that operating working capital could also be used to measure the efficiency of financial supply chain management. Criticism of this ratio resulted in the development of the CCC. Knauer and Wohrmann (2013) said the CCC was the most relevant measure of operational working capital and could be used to determine the length of outstanding stock plus DSO and DPO.

Importance of Adequate Working Capital

WCM is at the heart of many businesses (Talonpoika et al., 2016). Inefficient working capital prevents organizations from properly functioning as expected, thereby creating the possibility of bankruptcy. Some of the benefits of adequate working capital implementation are described in the following paragraphs.

Ability to Face Crisis

Good WCM allows organizations to efficiently handle emergencies (Guariglia & Mateut, 2016). If organizations had adequate financial backups and liquidity, they could have better handled contingencies that arose during the global recession. Organizations

with liquidity backups withstood the economic recession.

Contented Labor Forces

Enough working capital allows companies to reward individuals for excellent performance. Organizations that have enough working capital are able to satisfy and pay their workers when payment is due. This would contribute to a contented labor force that would be happy to increase the production of quality goods and services.

Regular Supply of Raw Materials

Organizations that have adequate amounts of working capital can carry enough inventory to satisfactorily serve customer needs. These organizations would also be able to facilitate the regular supply of raw materials for future continuous production and market expansion. Organizations would be able to create favorable market conditions that could, in turn, allow them to purchase required materials at lower rates and hold stock for higher rates.

Credit-Worthiness

Good WCM enables a firm to efficiently run its business, with no delays in bank services or services from other external financial institutions. Properly managing liquidity would allow an organization to create an environment for lenders to extend credit under natural and favorable conditions. Therefore, the ability for an organization to borrow money depends on their ability to repay the loan and behave in a financially responsible manner.

Liquidity and Solvency

A good WCM position would enable organizations to make dividend payments when they were due to investors (Ding, Guariglia, & Knight, 2013). This would give organizations good reputations. This would also create confidence in the outside world, including among company shareholders. Additionally, this would create good conditions for a favorable market environment to raise funds in the future. Nwankwo and Oso (2010) noted that a firm's inability to pay its obligations when they were due might have adverse effects on its reputation (Guariglia & Mateut, 2016). Hofmann and Kotzab (2010) stated that cash was the most liquid asset among the working capital components of firms, but noted that though cash holdings were essential, too much idle money was also not a good idea. The optimization of working capital entails minimizing WCM needs and realizing maximum revenues for long-term financing. Good WCM increases a firm's cash flow, which automatically increases its growth potential, since there would be enough funds to invest in long-term investments. The availability of funds for long-term investments enhances organizational growth potential and increases shareholder returns. Organizations should time cash flow, to ensure that it is positive. Gill and Shah (2012) stated that optimal levels of capital, which are based on organizational needs, are important to a firm's survival. Corporate governance, therefore, helps an organization manage its working capital assets. Well-managed working capital assets promote growth and protect shareholder interests (Hofmann & Kotzab, 2010). Researchers have asserted that corporate governance has significant implications on economic growth. Proper corporate governance practices are essential for mitigating risks for investors, bringing in

investments, and enhancing the efficiency of company operations (Velnampy & Pratheepkanth, 2012).

WCM

Muhammad, Rabi, Ibrahim, and Ahmad (2015) stated that WCM involves using funds needed for daily organizational affairs to achieve an organization's goals. WCM applies to managing cash, cash equivalents, debtors, prepayments, stocks, creditors, accruals, and short-term loans to increase profitability and make an organization run smoothly (Kehinde, 2011). Having enough working capital does not guarantee profitability, but incorporating corporate governance policies into organizational assets management could guarantee profitability and shareholder dividends. Therefore, WCM could be described as using proper corporate governance policies to administer CA and CL.

WCM implies that an optimal balance of probabilities exists in working capital assets investments (Binti Mohamad & Elias, 2013). In other words, organizations should avoid making rash decisions while managing working capital, to achieve optimal balance, in terms of the growth and survival of a firm (Osundina & Osundina, 2014). Since proper WCM is essential to business health, organizational boards and management should administer proper corporate governance mechanisms, taking factors such as size, business environment, and market share into consideration to enhance growth and shareholder value.

Corporate Governance

Many practitioners view corporate governance as a critical factor in WCM, because of its role in policy formulation. During the last decade, corporate governance has received a lot of attention because of various reforms. These reforms occurred because of the last financial crisis. Researchers have attributed the evolution of corporate governance to changes between ownership structure and control. These changes provoked variations that have differed by country (Mulili & Wong, 2011). There are several different approaches to corporate governance, but this study focused on agency theory and stewardship theory. Kiel and Nicholson (2003) described agency theory as the division of ownership and control, while stewardship theory indicates that professional managers should manage to benefit the company owners. Top management members are given significant stock ownership, ensuring a positive correlation between governance practices and the volume of stock that senior management owns (Mulini & Wong, 2011). The stewardship approach is a stakeholder theory, and suggests that the board of directors and the CEO are encouraged to act in a business' best interests (Mulini & Wong, 2011). Kajananthan (2012) identified different dimensions of corporate governance practice, including leadership style, such as CEO duality, CEO tenure, AC, BS, and the composition of the board of directors. The roles of CEO duality, BS, and the AC in maintaining and controlling adequate levels of working capital in organizations should not be taken for granted (Gill & Shah, 2012).

Corporate Governance Theories

In this section, I reviewed various corporate governance theories. These various corporate governance theories include: agency theory, resource dependency, stakeholder theory, stewardship theory, and the political theory. Altogether, these theories will show that sound corporate governance contributes to a firm's performance.

Agency Theory

The importance of agency theory cannot be overemphasized when discussing corporate governance research. In fact, most of the research on agency theory is derived from the tenets of corporate governance (Yusoff & Alhaji, 2012). Since Beile and Means first studied corporate governance, it has concentrated on the division of ownership from management. This process gave birth to pedals, which metamorphosed into the principal-agent relationship, because of dispersed ownership. Yusoff and Alhaji (2012) viewed corporate governance as a channel, in which the board of directors and top management were both considered to be watchdogs used to reduce conflict concerning the principal-agent relationship. In this context, the top administrators of an organization are the agents, the owners are the principals, and the board of directors is the monitoring apparatus (Haslindar et al., 2011).

The literature on corporate governance focuses on two participants: managers and shareholders. It implies that humans are consumed with their own personal interests and are disinterested in helping others. Therefore, directors oversee the governance responsibilities of the board, rendering services to shareholders by monitoring management's decision-making processes and actions. The board of directors oversees

maximizing shareholder wealth. However, this created uncertainty due to differences in information (Deegan, 2012). Managers could take actions to further their personal agendas, because of inside knowledge, which would give them an advantage over business owners. Therefore, the monitoring process has been structured to protect shareholders' interests. However, it is often a struggle to balance probabilities to ensure that agents act in the principal's best interests. This could result in agency costs, as it involves the principal monitoring the agent's expenditures to guarantee that reckless actions are not taken. Johansson and Ostergen (2010) stated that agency theory provided profound insights into corporate governance, but that it only applied to countries using Anglo-Saxon governance systems. Therefore, firms in different countries would have different methods of solving the agency problem.

Stakeholder Theory

Stakeholder theory focuses on the issues involving the stakeholders in a firm. The theory argues that companies want to satisfy each interest group in the institution (Abraham, 1951). Coleman, Hacking, Stover, Fisher-Yoshida, and Nowak (2008) stated that the theory implies that shareholders are the only interest groups within companies. Stakeholder theory explains the importance of corporate governance better than agency theory, because it recognizes that different parties constitute the structure of a firm. Firms recognize shareholders as business owners, and try to put their needs first (Yusoff & Alhaji, 2012). In the modern-day dispensation, a firm converts the efforts of its employees, investors, and suppliers into marketable aspects to benefit customers. The theory takes the needs of employees, investors, suppliers, and customers into

consideration. The theory also focuses on governmental bodies, political groups, trade unions, communities, business associations, prospective employees, and the public. Researchers have argued that business activities affect a wide audience, and, thus, businesses must be accountable to groups other than their shareholders. Therefore, it has been argued that firm performance should be measured in different ways, rather than just being measured by shareholder returns.

Stewardship Theory

The stewardship theory reflects a different style of management, in contrast to the agency theory. The theory presents middle managers as good stewards that act in business owners' best interests (Yusoff & Alhaji, 2012). Stewardship theory is affiliated with the social psychology doctrine, which focuses on the behavior of business executives. The theory has been associated with pro-organization and collectivist thought, and focuses on the interests of the firm. Stewards do not seek to achieve their personal interests before achieving corporate interests. Therefore, steward behavior should not depart from organizational behavior, as stewards continually seek to achieve organizational objectives (Pham, 2015). Smallman (2004) stated that since steward objectives do not depart from organizational objectives, maximizing shareholder wealth also maximizes a steward's utility. Smallman also noted that stewards balance the needs of different beneficiaries and interest groups, such as having one person serve as CEO and a board member. Therefore, stewardship satisfies all interested parties, resulting in more balanced corporate governance and overall value. The theory implies that there is a strong relationship between management and a firm's success, and a firm's performance

could protect and maximize shareholder wealth (Yusoff & Alhaji, 2012). Thus, when a CEO is also named chairperson of the board, he or she has the power to determine the success of and make decisions for an organization. Stewardship theory focuses on empowerment, rather than on monitoring and exercising control. The stewardship model encourages appointing one individual to serve as CEO and chairperson of the board.

Legitimacy Theory

Legitimacy theory is also important in corporate governance literature. The theory is a generalized process, in which an entity's actions are assumed to be desirable, appropriate, and proper regarding some constructed social values, norms, beliefs, and definitions (Yusoff & Alhaji, 2012). Researchers view this theory as a contract between an organization and society. Legitimacy theory depends on the tenet that a firm receives permission from the community to operate a business. The company is then accountable to society, regarding its influence to own, use resources and recruit employees (Deegan, 2012). In a capitalist society, maximizing profits is a measure of a firm's performance, but legitimacy theory states that profit maximization provides organizational legitimacy. Many researchers have studied legitimacy theory, because organizations must take the rights and privileges of the public and company investors into consideration. Therefore, failure to meet societal expectations could result in various restrictions being imposed on a firm's resources, operations, and the demand for its products. The theory implies that there is an association between a firm's disclosure and community expectations (Deegan, 2012).

Multiple Theories Approach

In this study, I explored various corporate governance theories. Agency theory concentrates on the different relationship between agents and principals. Stakeholder theory concentrates on the diverse interests of stakeholders, while resource dependency theory underscores the significance of the board of directors as a resource and predicts a function beyond its original control function (Deegan, 2012). The legitimacy theory of corporate governance implies that there is a social tenet between a firm and society. Agency theory is the most popular, as it has received a large amount of attention from the academic world. Agency theory has set the foundation for institutions to develop various governance standards, principles, and codes (Yusoff & Alhaji, 2012). Company shareholders appoint the board of directors to monitor and control managerial decision-making and protect shareholders' interests. It was expected that independent directors would hold supervisory roles, with one serving as a chairperson and one serving as the CEO, contradicting the idea of CEO duality. However, theories such as stewardship theory, resource dependency theory, and stakeholder theory have recently become better known. Boyd (1995) and Hillman and Dalziel (2003) have taken different perspectives on these theories. For example, Boyd argued that the seemingly contradictory views presented in the agency and stewardship theories could both be corrected if a contingency approach was used. Other practitioners have also combined the agency and the resource dependency viewpoints, contending that company boards have assets that affect their monitoring and support capabilities, and that board wealth lessens these effects (Yusoff & Alhaji, 2012). These viewpoints are intended to be complimentary to, but not serve as

a substitute for, agency theory. The best method seems to be to adopt an integrated approach to understanding sound corporate governance. Therefore, the need for an integrated approach to corporate governance theories to better understand board dynamics cannot be overemphasized (Roberts et al., 2005).

Corporate governance plays a critical role in WCM efficiency through the formation of the appropriate policies and procedures. Corporate governance is used to determine how WCM policies will be monitored and controlled. CEO duality, CEO tenure, the AC, and BS must be considered to monitor and control the corporate governance process. Gill and Shah (2012) noted that CEO duality and BS ensured proper amounts of working capital within an organization. The CEO's dual management roles benefits the management team and shields the board's interests by creating added value. Kyereboah also stated that firms should have small boards to encourage effective communication and decision-making. Lipton (1992) and Yermack (1996) also said small boards could make faster decisions.

CEO Duality

CEO duality focuses on power, as power dictates the direction of an organization. CEO duality occurs when one person assumes the position of CEO and chairperson of the board of directors (Krause et al., 2013; Lawal, 2012). The board of directors is structured to monitor top management, including the CEO, on behalf of a company's shareholders. Together, the CEO and the board of directors make policies to better an organization, including policies related to sound WCM. Research has shown that small boards of directors make more effective and faster decisions than larger boards. The board

oversees negotiating compensation contracts and hiring and dismissing the CEO. Some organizations allow their managing directors to serve as chairpersons, while other firms split the position between two separate individuals. Carty and Weiss (2012) noted that CEO duality contrasts with the agency theory doctrine. However, CEO duality has been beneficial in many cases, especially when the CEO works closely with the board to add value. CEO duality better serves management interests and prevents management from holding excessive corporate liquidity. Research has shown that creating a top unit of command sends positive messages to shareholders. Carty and Weiss found that every federal regulator and 25 states have deemed CEO duality permissible under existing rules and regulations. Also, most regulatory authorities agreed that their banking codes allowed CEO duality, and some noted that business regulations did not forbid CEO duality. Some did not actively support CEO duality, but said banks could practice CEO duality. Also, one state mentioned that its state banking regulations did not include corporate officer structure rules, but that its state corporate code allowed CEO duality. However, Ugwoke, Onyeanu, and Obodoekwe (2014) recommended that CEO duality be reduced. Carty and Weiss also stated that a correlation between CEO duality and organizational performance did not exist.

AC

Bansal and Sharma (2016) noted that the AC was one of the most important elements of corporate governance. Ameer et al. (2010) stated that different regulatory committees across the globe have recommended the universal adoption of and expanded roles for AC. AC have adopted an expanded role in the United States, as evidenced by

the establishment of the Sarbanes-Oxley Act of 2002, the Australian Treasury report of 2002, and Higgs' (2003) United Kingdom review. The AC represents another internal governance mechanism. AC significantly impact the quality of financial management. Practitioners have asserted that AC should have at least three members to promote independence. When one CEO serves for a long period of time, executive management and board interests are often better served. Longer CEO terms might also impact WCM efficiency. AC members are also integral constituents of a company's board of directors, and are responsible for rolling out policies to improve business health (Bansal & Sharma, 2016). If an AC presents fair financial statements to the board, the board is in a better position to develop a plan to increase a firm's accomplishments (Bhardwaj & Rao, 2015). Independent AC could also help ensure the reliability of top management's financial reporting through checks and balances (Cohen, Gaynor, Krishnamoorthy, & Wright, 2011). Corporate governance monitoring organizations throughout the world have demanded that firms have fair and modest AC to mitigate fraud (Bansal & Sharma, 2016). Arslan et al. (2014), Bouaziz and Triki (2012), Nuryanah and Islam (2011), and Yasser, Entebang, and Mansor (2011) highlighted the importance of AC in improving the quality of reporting and performance. Al-Mamun, Yasser, Rahman, Wickramasinghe, and Nathan (2014) argued that frequent AC meetings could help minimize agency problems and ensure fair and current investor information. The AC assesses financial statements and interacts with managers, internal and external auditors, and directors, to help ensure proper communication (Nuryanab & Islam, 2011).

According to Jensen (1993), the absence of independent leadership makes it difficult for the board of directors to monitor an organization's top management. Jensen stated that combining the decision-making authority and management under one role impacted the board of directors' ability to monitor senior management. Therefore, bureaucratic tendencies are eliminated when the CEO serves as the chair and a member of senior management (Kyereboah-Coleman, 2007). Hence, CEO duality could improve WCM efficiency. Dittmar et al. (2003) agreed with Jensen, as the authors conducted a study on 11,000 companies from 45 nations and found that countries that did not protect shareholder rights held twice the amount of cash as countries that had shareholder protection. Therefore, having weak shareholder protection renders asymmetric information and investment opportunities less important.

There is little research on the impact of corporate governance on WCM efficiency within Nigerian organizations, but some theoretical and practical research has been conducted. Dittmar et al. (2003) indicated that managers seek to hold a certain level of cash in their organizations for personal reasons, rather than to maintain shareholder wealth. The authors conducted a study on 11,000 companies from 45 nations and found that countries that did not protect shareholder rights held twice the amount of cash as countries that had shareholder protection. In other words, the motives of holding cash were less important in certain countries. However, Opler et al. (1999) investigated the hierarchy aspect of corporate cash holdings from 1952–1994 and found that firms held more cash when they were smaller, invested more in research, had more investment opportunities, and had lower amounts of working capital. Hartford (1999) noted that an

organization's level of cash holdings depended on its number of acquisitions, and that rich firms were likely to make more purchases. Dittmar et al. also stated that corporate cash holdings were related to agency problems, making a case for sound corporate governance structures. Inconsistencies in the study results occurred because of measurement problems, which were caused by international differences in accounting information. Thus, corporate governance is essential when agency problems arise in the determinant of corporate cash holdings.

Padachi (2006) stated that huge investments in inventories and accounts receivables were related to lower profitability. The author studied the return on total assets of 58 lower level manufacturing firms in Mauritius from 1998–2003. In the study, the author found that the short-run financing of working capital components increased. Deloof (2003) and Shin and Soenen (1998) also stated that there was a strong relationship between measures of working management and profitability. However, Christopher and Kamalavalli (2009) found that working capital components, such as CR, cash turnover ratio, CA, operating income, and debt ratio, negatively affected profitability. Therefore, this study focused on the importance of corporate policies concerning the short-run financing of working capital components.

Saddour (2006) studied the determinant of cash holdings within French companies from 1998–2012, as well as the impact of cash holdings on organizational market value. Saddour developed a model by dividing the study sample into growth and matured firms. The results of the study indicated that growth firms held increased levels of cash, in comparison to matured companies, and that the trade-off and pecking order

theories played a significant role in describing the effects of cash holdings on matured and growth firms. In the study, the author also found that firm's values by Tobin's Q propositions had a positive relationship with cash holdings. In addition, Kalcheva and Lins (2003) carried out a similar study and found that market value was not only dependent on cash, but also on other determinants, such as investment and cash flow levels, leverage, and investments. Therefore, managers of firms in debt might not take on negative net present value projects, which are beneficial to organizational shareholders (McConnell & Servaes, 1995). Growth companies have more cash than mature companies, which supports the current study. The conflict of interest that exists between a company's shareholders and its management is a significant determinant of corporate cash holdings (Dittmar et al., 2007). It is necessary that managers make decisions that will increase shareholder value. Therefore, strong corporate governance is essential to curtail management's personal interests.

Afza and Nazir (2007) investigated the aggressive working capital policies of 208 companies listed on the Karachi Stock Exchange (KSE) from 1998–2005. The authors used the cross-sectional regression model to examine the impact of aggressive working capital investment on financing policies. In the study, the authors found that a negative relationship existed between profitability measures and aggressive working capital investment and financing policies. Carpenter and Johnson (1983) also found that there was no significant relationship between conservative working capital policies and operating risk. However, Afza and Nazir's study contradicted Irene and Ice's (2007) study. Irene and Ice (2007) investigated WCM practices of some well-rated Malaysian

public companies and found that a perfect linearity existed between profitability and the level of WCM. The inconsistencies in the study results might have been provoked by the volatile nature of the Pakistani nation in 2007.

Dittmar et al. (2007) conducted a study of 297 firms in France from 1998–2002, incorporating the trade-off and pecking other theories. The authors noted that growth firms accumulated higher cash levels than experienced companies. However, Drobetz and Gruninger (2007) found a positive relationship between CEO duality and cash holdings, and found an association between BS and cash holdings. However, it is not typical for growth firms to accumulate higher cash levels than experienced companies.

Drobetz and Gruninger (2007) examined the cash holdings and cash equivalents of 156 non-financial firms in Switzerland from 1995–2004. In the study, the authors examined the significant influences of various variables on cash holdings. The authors found that there was a positive relationship between higher cash holdings and CEO duality, and a negative relationship between BS and cash holdings. In addition, Kim et al. (2011) determined that a positive relationship existed between cash holdings, dividend payments, and firm size, corroborating Drobetz and Gruninger's (2007) study. However, Megginson and Wei (2010) determined that a negative relationship existed between net working capital, debt, and cash holdings, contradicting Drobetz and Grunninger's study. The positive relationship between CEO duality and cash holdings supported the purpose of the current study, in determining the impact of corporate governance on WCM within Nigerian organizations.

Nazir (2009) analyzed the impact of aggressive working capital investment and

financial policies on 204 non-listed firms in the KSE in Pakistan from 1998–2005. In the study, the author evaluated the firms' returns, using the returns on asset and Tobin's Q approach. The authors found that firms that adopted aggressive working capital policies had increased firm value, and that investors preferred firms that adopted aggressive approaches to manage their short-term liabilities. Rehman (2006) conducted a similar study on the impact of WCM on the profitability of 94 Pakistani firms from 1999-2004. The author found a negative relationship between profitability and working capital ratios. However, Afza and Nazir (2007) investigated the impact of aggressive and conservative policies on WCM within 17 industrialized groups in the KSE. The authors determined that there was a significant difference between working capital investment and financial policies in various industries. Therefore, Afza and Nazir validated the notion that aggressive working capital policies increase profitability.

Kuan, Li, and Chu (2011) examined the relationship between corporate governance and family firms' cash policies. The authors found that the impact of corporate governance on the division of control rights and cash flow privileges varied between family-controlled and family-oriented firms. In addition, the authors found that the cash rights distinction significantly affected the various levels of cash positions in the firm. In addition, Ozkan and Ozkan (2004) supported the notion that the district role of outside directors could reduce the asymmetry of information that occurred between firms and investors. However, Chen and Ho (2009) found that the impact of the level of director's ownership on a firm's policies differed between family-controlled and nonfamily-controlled firms. Brenes, Madrigal, and Requena (2011) also found that

outside monitoring improved shareholder protection and the performances of family-controlled businesses. Therefore, the study contributed to the notion that corporate governance affected the need to stockpile cash in Taiwan controlled firms.

Bana (2012) examined whether WCM efficiency enhanced Jordanian firms' accountability and value from 2000–2008. In the study, the author determined whether wealth maximization was stakeholders' sole objective. The author found that profitability had a significant relationship with the CCC, noting that profit-oriented firms were less concerned with WCM. Rahemen et al. (2010) and Hayajneh and Yassine (2011) also found that the longer the cash conversion ratio, the greater the profitability within firms that adopted generous credit policies. However, Karadumah et al. (2011) stated that longer CCCs decreased company profitability and shareholders created value when managers reduced the number of days of accounts receivables and accounts payables. Therefore, policy makers, managers, and shareholders should pay attention to WCM.

Lau and Block (2012) took a sample from the Standard and Poor's 500 and the Edgar database to examine whether the presence of majority founder and family-held firms significantly influenced cash holdings. The authors found that founder companies held higher levels of cash than family and widely held organizations. Also, they found a positive relationship between founder management and cash holdings, indicating that the presence of patrons as managers helped mitigate agency costs of holding cash. However, having a massive amount of family members who serve as shareholders might lead to higher levels of cash, but lower firm value (Kalcheva & Lins, 2007; Ozkan & Ozkan,

2004). Invariably, controlling family shareholders often used their influence to hoard cash at the expense of minority shareholders. However, Anderson, Mansi, and Reeb (2003) found that a small amount of agency conflict existed in family firms. The authors did not conclude that having controlling member shareholders and families lead to higher levels of cash.

Gill and Shah (2012) studied 166 Canadian firms listed on the Toronto Stock Exchange from 2008–2010, to explore the factors that determined corporate cash holdings in Canada. The results showed that CEO duality, market-to-book ratio, firm size, liquidity, leverage, net working capital, and BS affected the corporate cash holdings in Canada. In addition, Afza and Adnan (2007) conducted similar studies and indicated that CEO duality and BS positively affected net working capital. However, Rizwan and Javed (2011) obtained data from 300 Pakistani firms listed on the KSE and found that a negative correlation existed between working capital and corporate cash holdings within Pakistani companies. A limitation of the study was that the measures used in the survey were adopted from Afza and Adnan's research, except for BS and CEO duality. This study is useful to the current study, because it contributed to the literature on the issues that govern corporate cash holdings and might provide useful information for financial managers, investors, and financial management consultants.

Valipour et al. (2012) examined the effects of company features on WCM within 83 firms listed on the Tehran Stock Exchange from 2001–2010. In the study, the authors used the CCC to describe company profitability, operating cash flow, size, SG, and current, quick, and debt ratios. The levels indicated that effective factors included

profitability, company size, and SG, but the levels were impacted by profitability, SG, CR, quick, and debt ratio. The study results aligned with Nilsson et al.'s (2010) research, which indicated that a negative relationship existed between SG and the CCC. However, the results showed great inconsistencies when compared to theoretical postulations. Therefore, the theories were not consistent, as theoretical literature does not support the relationship that exists between SG and the CCC.

Velnampy and Pratheepkanth (2012) stated that effective corporate governance practices are essential to minimizing risks for investors, increasing investment opportunities, and improving company performance. They observed the evolution of governance practices, in terms of changes between ownership and control. The authors further identified that agency theory and stewardship theory were most important to corporate governance.

Gill and Biger (2013) addressed how inefficient policies on WCM could negatively impact shareholder wealth. The authors used information on 180 firms listed on the New York Stock Exchange to document the impact of corporate governance on WCM efficiency within American manufacturing companies. The authors used a correlational and non-experimental research design, and studied published reports from the companies that participated. The study indicated that correlational designs provide both mathematical expressions and empirical observations of quantitative relationships. The authors stated that corporate governance played a fundamental role in enhancing working capital efficiency. The study supported Gill and Shah (2012), Kuan et al. (2011), and Lau and Block's (2012) research. However, the study indicated that larger BS

negated the improvement of working capital efficiency, which might not benefit American manufacturing companies overall. Therefore, the study could help financial managers and investors understand vital characteristics of corporate governance practices.

Venancio and Godfred (2013) examined the relative importance of WCM by measuring the CCC and how inventory, accounts receivables, and accounts payables impacted the profitability of small and medium sized organizations. The authors observed that accounts payables and accounts receivables were perfectly correlated to profitability, while company inventory and the CCC were not correlated to profitability. Stephen and Elvis (2011) also found a perfect correlation between accounts receivables and profitability. However, Karaduman, Akbas, Caliskan, and Durer (2011), Hayajneh and Yassine (2011), and Raheman et al. (2010) found a significant negative correlation between the CCC and profitability. The overall findings were relevant to this study, since the results are consistent with the working capital literature.

Ianniello (2015) noted that auditor and director independence provide protection for shareholders and other stakeholders. The author stated that providing non–auditing services to clients could affect an auditor's independence. Furthermore, the researcher noted that the ratio of outside independent directors to the total number of directors presented two significant questions. The questions were whether providing non-auditing services to clients impaired an auditor's independence, thus, lowering earnings quality, and whether the board of director's independence played a significant role in improving

earnings quality. The authors found that the board of director's independence did not play a significant role in improving earnings quality.

Pham (2015) addressed the ambiguity between CEO duality and firm performance. The author's study focused on the relationship between CEO duality and the performances of not-for-profit hospitals. The purpose was to study the relationship between CEO duality, including physicians on the governance board, size, and the financial performances of not-for-profit hospitals. The author used multiple regression analysis to study 146 not-for-profit hospitals in the United States from 2009-2012. Pham found that CEO duality and including physicians on healthcare firm governance boards were not correlated to the financial performances of not-for-profit hospitals. In addition, Green (2005) stated that the Sarbanes-Oxley Act of 2002 affected not-for-profit hospitals' abilities to achieve external regulations and implement appropriate governance structures. However, Krause et al. (2013) and Lawal (2012) obtained different results, based on how structure influenced firm performance. Therefore, a significant relationship did not exist between CEO duality and the presence of physicians on not-for-profit hospital boards.

Akshita and Chandan (2016) examined the effects of corporate governance on firm performance within large manufacturing firms in India from 2001–2010. The authors' analysis and estimation methods included tackling the problem of endogeneity. The authors found that larger boards had deep knowledge, which, in turn, enhanced firm performance. However, Pham (2015) also found that CEO duality was not related to firm performance. This is applicable to the current study, because the authors asserted that

businesses in the developing world that complied with sound corporate governance policies tended to achieve higher levels of performance. To conclude, the literature review showed that corporate governance could affect WCM efficiency.

Summary of Gaps in the Current Literature

Identification of Gaps in Current Literature

There are a few relevant gaps in the current literature. Firstly, there were many inconsistencies in the research on WCM, which indicated a lack of depth of research on corporate governance interaction. Scholars could resolve this by furthering research in this area. Secondly, the frequent application of pooled data and cross-sectional research often resulted in heteroscedasticity (Raheman & Nasr, 2007). Given this limitation, the reviewed studies used general least square analysis with a combination of cross section weights (Gill & Biger, 2013). Also, only a handful of studies explored the individual components of corporate governance, indicating a significant gap in the current literature. Economic literature on working capital and the impact of corporate governance on WCM is very scant. Therefore, the dearth of studies on specific industries and countries constitutes a weakness in the current literature that needs to be addressed. Unpopular policies regarding working capital have an adverse impact on cash and often cause agency problems. The situation stems from management maintaining balances that endanger the maximization of shareholder wealth (Gill & Shah, 2012). There is a lack of comprehensive assessments on these adverse impacts, which indicates a gap in the current literature that needs urgent attention. Finally, endogeneity issues crept up, because of the use of multiple regression analysis. To mitigate endogeneity problems,

the current study incorporated the most relevant variables that impact WCM. Since many studies only examined companies within specific time frames, there might have also been selection bias issues. Also, because of the scope of the research concerning the relationship between BS, CEO tenure, CEO duality, and working capital efficiency, some variables, such as organizational leverage and organizational CEO identification, were not necessarily present in the analysis model. Future research could address and expand on the current study by exploring other notable variables with different assumptions.

Plan to Fill the Identified Gaps in the Literature

In conjunction with most studies on corporate governance and WCM interaction, this study adopted the traditional form of measurement, using the multivariate regression analysis model. The multiple regression model was used to explore some control variables that were common in the literature. The study results might help address the gaps in the literature, and enable managers and decision makers in Nigerian organizations to efficiently allocate scarce corporate resources to working capital assets.

Chapter Summary

In this literature review, I concentrated on corporate governance theories, with an emphasis on the trade-off theory of cash holdings, which was vital to the study of the relationship between the characteristics of corporate governance and working capital efficiency. Also, in the literature review I elaborated on the precautionary and transition motives and explained the vital role that both models played in explaining the determinants of cash holdings by Nigerian firms. My discussion also covered various subjects, such as CEO duality, CEO tenure, corporate governance theories, AC structures,

and the major concepts of WCM. To conclude, the scarcity of literature showed that corporate governance positively influenced WCM efficiency, but this idea needed to be further explored. In the next chapter of this dissertation, I will discuss the research methodology and detail the research analysis that I used to determine the relationship between BS, CEO tenure, CEO duality, AC, and working capital efficiency within Nigerian organizations.

Chapter 3: Research Method

Introduction

The purpose of this study was to evaluate the impact of corporate governance on WCM within Nigerian organizations. Nigerian organizations face significant challenges with working capital variance in part, related to operational efficiency, market standings, and working capital viability (Ademola, 2014; Luqman, 2014). Imeokparia (2015), Luqman (2014), and Ogundipe et al. (2012) expressed tremendous concerns about the lack of policies concerning WCM in Nigeria, and encouraged a review of policies concerning collection, payment, and cash conversion. The Nigerian government has through corporate governance mechanisms and other forms of control have increasingly pressed Nigerian firms to add value to firms to benefit the nation (Okike et al., 2015). The Code of Corporate Governance, which was passed in Nigeria in 2011, encouraged companies to improve their performances with support from the Nigerian government (Adeoye, 2015). Also, the passage of the Sarbanes-Oxley Act in 2002 and the development of the Organization for Economic Cooperation and Development have immensely strengthened the economy (Okike, et al., 2015). These acts and organizations have provided opportunities to develop efficient WCM policies for Nigerian organizations. It is important for industry practitioners and researchers to understand that appropriate governance models will enhance overall effectiveness and aid business managers in allocating resources; Nigerian organizations could utilize these models to improve their efficiency.

The research problem I addressed in this study was whether there was an association between corporate governance and WCM efficiency within Nigerian organizations. Consequently, I evaluated the impact of corporate governance on WCM efficiency within Nigerian organizations in this study. The results of this study might help Nigerian organizations seek appropriate corporate governance structures that could enhance their effectiveness and lead to sound WCM policies.

In this chapter, I will discuss the research methodology. Firstly, I will outline the research design and methodology, along with reasons for choosing both. Secondly, I will discuss the study setting and sampling methods. In these sections, I will explain (a) the study population; and (b) the sampling method frame that will include the criteria for my selection of the firms for the study, the sampling frame, the size of the sample, and the reason for the sample size. A section on instrumentation will include the tools adopted to measure the variables in by researchers in previous studies, including how I examined the relationship that exists between corporate governance and WCM efficiency in this study. Also, in the instrumentation section I will explore working capital performance and explain the definitions and share the calculation methods of the dependent and independent variables. Data collection methods will then be discussed, and the inclusion of secondary data attained from private and public databases will be explained. I will then review the data analysis methods, followed by a discussion of the hypotheses. Finally, I will conclude the chapter by explaining how participating companies were protected and how the findings were shared.

Research Design and Rationale

In this quantitative research study, I employed a multiple regression analysis approach and used secondary data as input variables to ascertain if there was a significant relationship between corporate governance and WCM efficiency within Nigerian organizations.

Description of the Research Design

In this correlational study, I applied multivariate regression analysis to examine the relationship between corporate governance and WCM as well as the working capital performance model. Boldina and Beninger (2016) stated that two or more predictors are present in multiple regression analysis, unlike the simple, linear regression model, in which practitioners only examine one outcome variable on a predictor variable. Boldina and Beninger also stated that using the multiple regression analysis is appropriate when the research involves determining the linear combination of predictors that correlate with the dependent variables. Therefore, I designed this study to determine the relationship between corporate governance factors and WCM within Nigerian organizations. In this study, my aim was to optimize the factors that positively relate to WCM efficiency to create value and expose corporate governance factors that do not positively correlate to WCM. Usually, the following formula characterizes a multiple regression model: $Yi == \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + \mu it$. The subscript α refers to the Alfa and μit denotes the error term. Yi is the outcome or dependent variable, in the case of this study, either CA, CL, CR, and the CCC. μit is the growth of firm i in time t. TNit is the CEO tenure. CDit is the CEO duality. BSit is the BS. ACit is the audit committee. β_1 is the

coefficient of the predictor of TN. β2 is the coefficient of the predictor CD. β3 is the coefficient of the predictor of BS, and β4 is the coefficient of the predictor AC.

Definition/Measurement of the Variables of the Study

Frankfort-Nachmias and Nachmias (2008) identified three classes of properties of variables in quantitative research: the analytical, measurement, and relational properties. The authors noted that the analytical aspect of the variables explained the role each variable played in the systematic scheme of research and distinguished the three kinds of variables: the dependent or outcome variable, the independent variable, and control variables. The dependent variable is the output that is studied, while the independent variable represents the inputs and potential reason for the variation (Flannelly, Flannelly, & Jankowski, 2014). Control variables, as Flannelly, Flannelly, and Jankowski (2014) opined, were included in their model to avoid misinterpretation and to describe what will remain constant to minimize the level of the explanatory power of the model. The measurement dimensions of the variable properties related to whether the variables observed in the study correctly aligned to help assess the subjects. Lastly, Frankfort-Nachmias and Nachmias (2008) stated that the relational dimension explained the similarities exist between the variables. This relationship could either have been positive or negative, demonstrating a significant or insignificant association.

Independent Variables of the Study

CEO duality/CEO tenure. CEO duality is regarded as a situation in which the CEO of a company is also named the chairman of the board (Tang, 2017). To measure CEO duality in this study, I assigned a value of 1 if the same person occupied the position

of CEO and chairman of the board and assigned a value of 0 if one person did not hold both positions. While CEO tenure is defined as the number of years a CEO has served, CEO duality focused on whether the CEO also serves on the board.

BS. A board is the group of people that work together to create the best outcomes for an organization (Huang & Wang, 2015). Several studies have been conducted on the effectiveness of collective decision-making. Researchers determined that the optimal size for a decision-making group was seven people, but others found that the most efficient size was five people (Desender et al., 2013). However, board composition could range from five to 20 members, since the number of participants does not increase or decrease the effectiveness of decision-making. The Investor Service (2014) noted that an effective BS in hospitals consisted of eight to 20 members. For this study, I calculated BS by counting the number of directors on the governance board.

AC. The AC is the selected number of members of the operating committee of the board of directors who are charged with overseeing financial reporting and disclosures (Mnif Sellami et al., 2017). The AC comprises all the AC members. Members are selected from a company's board, and a chairperson is selected from the existing committee members (Juhmani, 2017).

Dependent Variables of the Study

CA. Damar, Meh, and Terajima (2013) noted that CA are balance sheet accounts that describe the value of all items that analysts can convert into cash within one year or consume in the operating cycle. The CA will estimate the value of all elements turned

into cash within one year. In this study, CA included cash and cash equivalents, accounts receivables, inventory, marketable securities, prepaid expenses, and other near cash.

CL. Hoskin, Fizzell, & Cherry (2014) noted that CL constitute debt accounts in the balance sheet that are due within 1 calendar year and include short-term debt obligations, accounts payables, accrued liabilities, and other financial obligations. The CL measured the amount due to creditors within one year. Therefore, liabilities within one year are classified as current liabilities on a firm's balance sheet

CR. The CR is a financial and efficiency ratio that gauges a company's ability to pay its short-term and long-term outstanding obligations by dividing CA by CL (Rezaei & Jafari, 2015). Rezaei and Jafari (2015) noted that this liquidity ratio is used to give insight into a company's capability to defray its liabilities with its assets. Liabilities comprise debts and accounts payables, while assets are comprised of cash, short-term securities, inventories, and accounts receivables (Liang et al., 2016). The ratio was calculated using the below formula:

CR = CA/CL

The CCC. The CCC is a metric that measures the length of time in days a firm ties up net dollar inputs in the purchasing, making, and selling of goods and services before converting them into cash flows (Das, 2016). The estimate calculates how quickly a firm can turn the liquidity it has on hand at a particular point in time into inventory and payables, through sales revenue and receivables, and then back to cash. It was calculated by adding DIO and DSO and subtracting DPO. The CCC is calculated using the below formula: CCC = (DIO + DSO – DPO) * 365

SG. The measure by which the average sales size of a company's products or services has increased or decreased from year to year**.** In this study, the SG measured the current year's sales minus the previous year's sales divided by the previous year's sales. I have summarized the SG by the below formula to help account for the monthly or yearly increase in revenue:

SG = CYS – PYS / PYS,

where

SG = Sales Growth

CYS = Current Year Sales

PYS = Previous Year Sales

Justification

Since the goal of the study was to investigate the association between the independent and dependent variables, a quantitative method was the most suitable approach. The process of measurement used in correlational research designs is central to the quantitative approach (Creswell, 2013). Gill and Biger (2013) noted that the qualitative research approach is fashioned for an exploratory study and is often used when theories are not known. Practitioners have not regarded the principles of corporate governance and WCM as exploratory in nature. For this reason, I chose the WCM and corporate governance theories to serve as the theoretical framework for this study. Creswell (2013) noted that the quantitative method is used to determine what variables influence an outcome in problem situations. In this study, quantitative research was appropriate because it allowed the study results to be presented in mathematical

expressions and explored the empirical relationships between the variables (see Gill & Biger, 2013).

There are many positive aspects associated with the quantitative method, but there are also aspects that might have interfered with the study outcomes. However, the advantages of the quantitative method outweighed its limitations. Using the quantitative method allowed me to create a rich database of records, and these records provided unbiased viewpoints. The qualitative approach could have provided more biased viewpoints, making it less appropriate for this study. Using databases containing information on Nigerian organizations provided a more reliable outcome (see Anderson, Prause, & Silver, 2011).

Researchers have used a combination of both the quantitative and qualitative approaches to study corporate governance and WCM (Ostlund et al., 2011). However, the qualitative approach provides personal opinions, and therefore, study results cannot be widely generalized to provide a vivid description of the working capital phenomenon. The outcome of a study that is based on a manager's perspective would be subjective and present biased results. Therefore, qualitative studies on WCM efficiency and corporate governance have not presented meaningful results (Pham, 2015). Also, qualitative studies are often difficult to replicate as Pham (2015) noted.

Quantitative research involves various designs, such as the cross-sectional design, quasi–experimental design, pre–experimental design, and secondary data. However, according to Frankfort-Nachmias and Nachmias (2008), the cross-sectional method is often adopted in studies that distribute surveys, while the quasi-experimental design is

similar to the experimental design but involves more than one sample of events over an extended period. In pre–experimental designs, researchers conduct experiments (Gandhi, Thomas, & Desai, 2017). Because of the nature and goal of this study, these research designs were not suitable.

The quantitative research method was chosen to address the problem statements that were indicated in Chapter 1 of this dissertation. In this quantitative study, I investigated the impact of corporate governance on WCM within Nigerian organizations. The measurement of WCM is not new, as many firms have tested working capital principles using different models. Researchers have used archived data collected in various disciplines to compare and derive interferences from the data (Singleton & Straits, 2005).

Pham (2015) noted that secondary data included public and private records, and that the advantage of using secondary data was its availability. Frankfort-Nachmias and Nachmias (2008) stated that secondary data cost less and that some research problems were investigated using only secondary data. Using secondary data also allowed for confirmation of past studies, increased the sample size and the validity of findings, and allowed the study to be generalized to the larger population. Researchers have explored the impact of corporate governance on WCM theories in different situations across different industries. Therefore, my study advanced past research because the goal was to investigate the impact corporate governance has on WCM efficiency within Nigerian organizations. Thus, using secondary data was suitable for this study.

Researchers have recently used multiple regression models to study corporate governance and WCM. For example, Gill and Biger (2013) used the regression analysis model to research the impact of corporate governance on WCM within American manufacturing firms. Amba (2013) used the ordinary least square approach to study the relationship between CEO duality and company performance. Since the goal of this study was to examine the relationship between various independent and dependent variables, the multiple regression analysis model was used instead of other statistical models, such as the ANOVA, correlation analysis, and non-parametric analysis. The ANOVA test evaluates if the group means of the dependent variables significantly differ, while non-parametric analysis is suitable for measuring nominal and ordinal levels (Green, Salkind, & Akey, 2011). Also, Gill and Biger stated that both correlation analysis and bivariate linear regression analysis only examine two variables, the dependent and independent variable, which made these two models less than ideal for this study.

Target Population

In the study, the target population was 89 organizations listed on the NSE. Information on the boards of directors and corporate governance policies was obtained from the NSE portal. Frankfort-Nachmias and Nachmias (2008) stated that the selection process is vital, because the population must satisfy conditions to build the study sample. The Security and Exchange Commission (SEC) database contained information on Nigerian organizations that are registered and deregistered, based on criteria set by the

SEC. In total, 89 large firms represented Nigerian organizations, and these companies followed SEC conditions for registration with the SEC database.

Sampling Method

In this section, I will explain the sampling method, the sampling frame that I used to choose participating companies, the sample size, and the rationale for the sample size. Sampling criteria are the list of features that are crucial for eligibility in the study. In the following sections, I will explain the eligibility requirements for the Nigerian firms.

Sampling Design

I used a correlational and non-experimental research design in this study, to explain the impact of corporate governance on WCM within Nigerian organizations. Participating companies were selected from the NSE database and other online sources to collect a random sample of organizations. Only 89 of 200 financial reports from public companies from 2013-2014 were used. Generalizations are not always possible in all studies, so this study used a smaller sample size to represent the larger population. To arrive at proper inferences, the sampling plan that was used helped to eliminate errors, such as incomplete structures and clusters of elements. The sampling frame included companies that are engaged in public trading. It is mandatory for all publicly traded companies to register with the SEC, so only firms registered with the SEC were selected. I used the simple random sampling strategy in this study, because systematic sampling, stratified sampling, and cluster sampling require intervals, sizes, and group levels.

Screening and Eligibility Criteria

To streamline the study to include a more manageable number of organizations and choose a representative sample of the population, I used a screening process and a simple random sampling process to select organizations from the SEC registry. Nigerian companies from the SEC registry had to meet the following criteria:

- Firms must have met the SEC's registration eligibility for the period.
- Firms must have had corporate governance information in their financial reports for 2013- 2014, including CEO duality and an AC.
- Firms must have had reports of their financial information and working capital margins from 2013–2014.
- Firms must have had market values of at least $2 million.

The criteria were chosen based on the assumption that Nigerian Corporations were more likely to utilize corporate governance structures.

Sampling Frame

I used a simple random sampling process to select organizations for this study. Probability sampling was used, because it allows researchers to ensure that every member of the population has an equal probability of inclusion in the analysis. According to Joshi and Rajarshi (2016), probability sampling ensures that the selected organizations represent the target population, and, therefore, make it possible to present study findings with confidence.

Sample Size and Rationale

The total number of publicly registered companies in Nigeria is small, as compared to the developed world. There are over 200 publicly registered businesses in the NSE. I utilized a simple random sample, in which I examined the financial statements of 89 firms. The sample size was appropriate, because of the number of listed companies on the NSE and the popularity of the topic in the developing world. Statistical tests were used to evaluate each of the organization's financial statements from 2012-2013. Lwanga and Lemeshow (2015) stated that determining the sample size is dependent on the standard error value and the confidence interval that the researcher indicates. Sharperis (2010) also stated that investigators could only rely on statistical power to determine if study results were significant. Gill and Biger (2013) examined 500 financial reports from publicly traded companies from 2009-2011, to determine the impact of corporate governance on American manufacturing firms. Many companies listed on the NSE were small and had incomplete data, so companies that were listed on the NSE website formed the initial study sample. The sample size was 89 top Nigerian companies with good earning capacities in the main sectors of the economy. The segments included agriculture, conglomerates, construction/real estate, consumer goods, financial services, healthcare, information and communication technology (ICT), industrial goods, natural resources, and oil and gas services (NSE, 2016). Numbers were assigned to each Nigerian company in the preselected list in the spreadsheet and 89 companies were randomly selected by using G*Power Analysis. This returned an equally distributed random sample size.

To determine a sample size that is representative of study population, version 3.0.10 of G*Power Analysis software was used. After using the software, a sample size of 89 Nigerian organizations drawn from the sampling frame was revealed. The parameters incorporated into the G*Power 3 software include effect size 0.015, α error. Prob. 0.05, pow. (1- β error. Prob.) 0.8, and the number of independent variables (four) resulted in a total sample size of 89. However, only 46 of the Nigerian organizations could be selected to ensure that the included institutions also had the necessary financial data. A sample size of 89 organizations was adequate for this study, as many previous studies used smaller sample sizes.

Instrumentation

Research on WCM efficiency and corporate governance is non-existent. Many researchers have introduced various definitions and categorizations regarding instrumentation. Previous studies have used several different instruments to measure working capital efficiency and corporate governance.

Measurement

Milfont and Fischer (2015) indirectly linked measurement to operational definitions. To study the impact of corporate governance on WCM efficiency within Nigerian organizations, CEO tenure, CEO duality, BS, and AC will be defined, along with working capital performance measures were used in the study. Researchers often use different levels of measurement to complete their studies. I chose to use the nominal, interval, and ratio levels of measurement.

From a statistical viewpoint, nominal measurement is the lowest level of measurement (Bond & Fox, 2015). The operational definitions of the independent variables, which are CEO duality, CEO tenure, BS, and the AC, were connected through this level of measurement. A nominal scale, as the name indicates, places data into categories using any type of order and structure. In a survey, "yes" or "no" questions demonstrate the nominal level of measurement, as no order or distance exists between "yes" and "no." The most nominal level of measurement in statistics is in the non-parametric group, including modes and cross tabulation. There is a record of highly sophisticated modeling techniques present for nominal data. I used nominal measurement to classify firms into two classes. For example, companies with CEO duality were assigned a value of 1, and companies without CEO duality were assigned a value of 0.

The ordinal scale of measurement involves ranking. When participants are asked to rank several items from most flavorful to the least delicious, a researcher might be indirectly asking participants to produce an ordinal scale of their preferences. In the ordinal scale of measurement, there is no objective distance between items. Scientists use the ordinal scale to interpret gross order instead of positional ranges (Portney & Watkins, 2015). Ordinal data includes mode and median, without non-parametric statistics. Modeling techniques are most often used to determine ordinal data. I did not examine independent and dependent variables that possess ordinal characteristics. Therefore, it was not appropriate to use the ordinal scale of measurement for this study.

The interval scale is a standard survey rating scale (Bond & Fox, 2015). When a researcher asks participants to rate their satisfaction on a point scale from dissatisfied to satisfied, the researcher is using an interval scale, because interval scales are assumed to be equidistant. Researchers can interpret the differences in the distances along the scale. This scale differs from ordinal scales, because the differences are not described in order. Interval scale data in research statistics involves parametric statistical techniques, such as regression, correlation, mean, standard deviation, analysis of variance, and factor analysis, including various modeling and multivariate techniques. Consequently, the dependent variables, including financial working capital indicators, such as CR and the CCC, could be measured using interval and ratio scales. Similarly, some of the remaining variables, such as the BS, could also be measured using the interval and ratio levels of measurement.

Measurement validity. Researchers have established measurement validity, which comprises content, empirical, and current validity, to ensure that changes in the dependent variables occur because of changes in the independent variables (Frankfort-Nachmias & Nachmias, 2008). Content validity ensures that the measurement instrument answers the research questions. I used a sample of the targeted population of Nigerian organizations, and used the appropriate research design to answer the research questions and hypotheses.

Pham (2015) stated that empirical validity of a measurement instrument focuses on the relationship between the measuring instrument and the measured outcome. Some researchers might compare study results with those obtained in previous studies. I

measured working capital operating outcomes, such as the CCC, working capital margins, and the cash conversion efficiency of Nigerian organizations. To ensure empirical validity, the measurement instrument for this study measured what it was intended to measure. Construct validity was not relevant to this study. Construct validity is present when researchers distribute questionnaires to participants that are designed to answer the research questions (Frankfort-Nachmias & Nachmias, 2008). I did not distribute questionnaires in this study, as secondary data of financial indicators were used, along with descriptive statistics and multiple regression testing.

Measurement reliability. Pham (2015) stated that every study contains some errors. The author associated variable errors with factors such as instruction ambiguity, which influences participants' responses to questionnaires. I did not use a questionnaire.

Researchers approach measurement reliability by examining the reliability measure, which calculates the extent of error in a research study. Pham (2015) noted that the reliability measure ranged from 0 to 1, with a value of 0 or 1 indicating that the measurement contained all variable errors or no error at all. Gill and Biger (2013) and Pandya (2011) used secondary data to determine the impact of organizational effectiveness. The authors used multicollinearity analysis to determine if two or more independent variables were correlated. Hence, measurement reliability indicates that the measurement of the independent variables is similar. This will be further discussed in Chapter 4.

Data Collection

Financial reports from 89 Nigerian companies from 2013-2014 were used in this study. The data collection methods tested four proposed hypotheses and four alternates to answer the research questions, which focused on the association between corporate governance and WCM. As stated in the literature review, it was expected that corporate governance practices were positively related to WCM components.

I also incorporated secondary data from the NSE database, gathering financial data, BS, board tenure, and AC information from each participating company's website. The financial reports included data from a two-year period, from January 2013 to December 2014. I collected data such as CA, CL, CR, and CCCs from each company's reported information. Then, the average values of these data were calculated. The CR, cash holdings, and cash conversion efficiency ratios were derived from the average values of the financial information. CEO tenure, CEO duality, BS, and the AC were also examined. I selected 89 Nigerian companies to create the sample. The sample did include organizations from the following sectors:

- Financial services (10 Firms)
- Consumer goods (12 Firms)
- Oil and gas (Eight Firms)
- Agriculture (Three Firms)
- Conglomerates (Eight Firms)
- Construction/real estate (Seven Firms)
- ICT (Six Firms)

- Industrial goods (Eight Firms)
- Natural resources (Two Firms)
- Healthcare (Eight Firms)
- Services (14 Firms)

Research Questions

The four research questions, four hypotheses, and four associated hypotheses were as follows:

Research Question 1: What is the relationship between corporate governance practices and CA?

Hypothesis 1:

$H_0$1: There is no association between corporate governance practices and CA.

$H_1$1: There is an association between corporate governance practices and CA.

I tested Hypothesis 1 by running the following multiple regression equations:

$CA = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit1$

Research Question 2: What is the relationship between corporate governance practices and CL?

Hypothesis 2:

$H2_0$ - There is no association between corporate governance practices and CL.

*H*2 - There is an association between corporate governance practices and CL.

I tested Hypothesis 2 by running the following multiple regression equations:

$CL = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit2$

Research Question 3: What is the relationship between corporate governance practices and CR?

Hypothesis 3:

H_0 - There is no association between corporate governance practices and CR.

*H*3 - There is an association between corporate governance practices and CR.

I tested Hypothesis 3 by running the following multiple regression equations:

$CR = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit3$

Research Question 4: What is the relationship between corporate governance practices and the CCC?

Hypothesis 4:

H_0 - There is no association between corporate governance practices and the CCC.

*H*4 - There is an association between corporate governance practices and the CCC.

I tested Hypothesis 4 by running the following multiple regression equations:

$CCC = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit4$

Hypothesis Formulation

The statistical *f* test was used to ascertain if there is a linear relationship between the working capital components and any of the independent variables (CEO tenure, CEO duality, BS, and audit committee). The hypotheses are listed below:

Hypothesis 1: $H_0 1: \beta_1 = \beta 2 = \beta 3 = \beta 4 = 0$

$H_1 1$: Not all the β_i (i = 1….4) were 0

Hypothesis 2: $H_0 2: \beta_1 = \beta 2 = \beta 3 = \beta 4 = 0$

$H_1 2$: Not all the β_i (i = 1….4) were 0

Hypothesis 3: $H_0 3$: $\beta_1=\beta 2=\beta 3=\beta 4=0$

$H_1 3$: Not all the β_1 (i = 1….4) were 0

Hypothesis 4: $H_0 4$: $\beta_1=\beta 2=\beta 3=\beta 4=0$

$H_1 4$: Not all the β_1 (i = 1….4) were 0

In the analysis, a α of 5% level of significance was used, rejecting the null hypothesis if the calculated *p*-value is ≤ (less than) .05 (Field, 2009). In other words, if the null hypothesis was correct, there would be no linear relationship between WCM efficiency and any of the independent variables in the stated regression equation. Nevertheless, if the null hypothesis was rejected, there would be a statistical indication of a regression association between working capital efficiency and one of the independent variables in the analysis. If a regression relationship was found, *t*-tests were conducted for each of the beta coefficients to determine if the independent variables aided in the explanation of the variation in the values of the dependent variables. The independent variables with no explanatory power, or no significant increase in how the model predicts the outcome variable, were taken out of the regression model using the stepwise method.

Data Analysis

After the data analysis, data collection, and calculation of the variables, the researcher input and analyzed the data using SPSS. The four equations that were used for the multiple regression models are below:

$CA= \alpha + \beta_1 TNit+\beta 2 CDit+ \beta 3 BSit+ \beta 4 ACit +eit$

$CL = \alpha + \beta_1 TNit+\beta 2 CDit+ \beta 3 BSit+ \beta 4 ACit +eit$

$CR= \alpha + \beta_1 TNit+\beta 2 CDit+ \beta 3 BSit+ \beta 4 ACit +eit$

$CCC = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit$

Notes: CCC = cash conversion cycle, α = alfa, β = beta, TNit = CEO tenure, CDit = CEO duality, BSit = board size, ACit = audit committee, μit = the error, CA = current assets, CL = current liabilities, and CR= current ratio. The same independent variables used in all four equations to determine their effects on CA, CL, CR, and the CCCs of the organizations.

Statistical Analysis

There are several assumptions in multiple regression analysis that are outlined in the current empirical literature. Gbadamosi (2016) noted that these assumptions must be verified before any meaningful conclusions about a population are determined. The author examined the following nine assumptions:

- Measurement of variables,
- Presence of variance,
- Absence of perfect multicollinearity among the predictors,
- No strong correlation between the predictors and the external variables,
- Presence of homoscedasticity,
- Lack of autocorrelation of error terms,
- Normally distributed errors,
- Independence of data, and
- The linearity of relationship.

Greene (2012) added more assumptions to this list. In the study, the researcher ensured that the following assumptions and conditions were met:

- No notable outliers exist in the data sets of dependent variables.
- Normally, there is a distribution of the dependent variable in the population for each blend of levels of the independent variables.
- The residuals in the analysis design are random and distributed with zero means.
- The arrived scores on the variables are independent of other scores on the same variables.

Before performing statistical analysis, I ensured that there were no existing outliers in the data set. To check for the normality of variables, I used descriptive data to screen the data set that is comprised of minimum, maximum, mean, and standard deviations. To monitor the integrity and the reliability of data, I performed multicollinearity and homogeneity tests. To comply with all of the outlined assumptions, I examined the regression output, *F*-ratio, *R*-squared, and the adjusted *R*-squared.

After all the assumptions were met and the regression outputs were examined, I reported the *F*-ratio of ANOVA to demonstrate the entire regression analysis that was used for the data analysis, and determined if the independent variables predicted the dependent variables. The *R* value shows the quality of the prediction of the dependent variables in CA, CR, CR, and the CCC. The coefficient of determination described as *R*2 denotes how appropriately the study data fits the statistical model. The coefficient of determination varies from 0 to 1. R^2 of 1 indicates that the regression lines fit the data, while a R^2 of 2 shows that the line does not fit the data. Therefore, R illustrated the proportion of variance in the dependent variables of CA, CR, CR, and the CCC that could

be incorporated to explain the independent variables of TNit, CDit, BSit, and ACit. Moreover, I determined the statistical significance of TNit, CDit, BSit, and ACit by interpreting the *t* value and *p*-value together, to determine if their coefficients were significantly different from 0.

Protection of Selected Organizations in the Study

Walden University requires that each study comply with the University's ethical standards and any applicable international guidelines. With this in mind, I did not involve human subjects in my study, but instead collected data from the organizations involved. Statistical analysis was conducted on secondary data, which included published financial reports from Nigerian companies from 2013–2014. SPSS software was used to analyze the data. Ethical dilemmas are of paramount importance. Therefore, I ensured data integrity and confidentiality, to prevent unforeseen events from affecting the Nigerian firms. The names of the Nigerian organizations were not included to maintain their privacy. Only the committee chair, the methodologist, and the researcher had access to the raw data to ensure data integrity. The data were shielded from persons and organizations that were not a part of the project for security reasons. The data will be stored for five years and later discarded for safety reasons.

Dissemination of Findings

Presenting posters at symposiums and conferences is an effective way of sharing research with the public. This will allow me to develop academic experience and network with other faculty and students who share similar research interests. To promote

scholarly activity, I will share this study in poster sessions with Walden University's permission. I will only share the study's findings and will not share my personal beliefs.

Summary

In Chapter 3 I discussed the research design that was used to test the hypotheses and research questions, which were developed based on the literature review. There is a need to explore the relationship between corporate governance practices and WCM efficiency within Nigerian organizations. In Chapter 3 I offered a rationale for using quantitative research and secondary data to conduct this study. This chapter discussed all of the elements associated with quantitative research and shared that the multiple regression model was employed to test the recommended hypotheses and the alternative hypotheses. In Chapter 4, I will present the results of this study. Also, in Chapter 5, I will provide a complete summary of this study and will share the findings and make suggestions that might help Nigerian organizations choose appropriate corporate governance models to increase the effectiveness of their institutions.

Chapter 4: Results

Introduction

In this study, I examined the association between CG and WCM efficiency of Nigerian organizations. The purpose of this quantitative correlational study was to add to the ongoing discussion as to whether CG practice has any impact on the working capital management efficiency of Nigerian organizations, and if so, to know the nature and importance of such effects. I conceived that a sound knowledge of this relationship might empower Nigerian organizations with the vital information they require for their resource allocation decisions.

In the study, I developed four research questions to examine whether there were positive statistical relationships between CEO tenure, CEO duality, BS, size of AC, and WCM of Nigerian firms. The working capital performance indicators included: CAs, CLs, CR, and CCC. I adopted descriptive statistical analysis to produce the frequency and central distribution and to show the effectiveness of the methods used to define, arrange, summarize, and quantitatively depict the data utilized in the study. To present the frequency distribution and central tendencies, I tabulated and plotted the minimum, maximum, *M*, medium and *SD* of working capital performance related to CEO tenure, CEO duality, BS, and AC size of the sampled Nigerian firms. I adopted the general least square model with intersection weights of 11 sectors (financial services, consumer goods, oil and gas, agriculture, conglomerates, construction/real estate, ICT, industrial goods, natural resources, healthcare, and services). This model helped me to examine the hypotheses of the study and generalize from the sampled Nigerian companies to the

entire population of Nigerian organizations. I also adopted inferential statistics to examine the hypotheses of the study and to generalize from the sampled companies to the population of the Nigerian organizations. The generated results of this model and of the inferential statistics indicated an assessment of the relationship between CEO tenure, CEO duality, BS, and AC size of the sampled Nigerian firms.

In this chapter, I will focus on my analysis and review of the results of the statistical analyses I conducted on the collected data. I will assess the study findings and give insight into the impact of CG on WCM. There will be two main sections in this chapter. In the first, I will provide insights into the descriptive statistics of the sampled Nigerian companies. In the second section, I will present an analysis of the inferential statistics will also explain the findings regarding the associations between CEO tenure, CEO duality, BS, AC size, and the four working capital indicators.

Data Collection

Institutional Review Board (IRB) Approval for Data Collection

The IRB approval number of this doctoral capstone is 03-22-17-0368645. I obtained the approval contingent on my acceptance of the guidelines in the application request. The procedure emphasized a strict compliance with Walden University's ethical requirements for the doctoral capstone. The IRB procedural process guided the process of data collection for this study. The data collection commenced after obtaining approval from the IRB and concluded within 4 weeks of receiving approval.

Sources of Collected Data

As I presented in Chapter 3, 89 firms were determined to represent an optimal sample size for this study. However, NSE data ratings were available for only 84 companies. Further evaluations showed that complete financial data were not available for five of the firms listed on the Nigerian stock exchange database. The lack of adequate data necessitated my removal of these five companies from the sampling population. The NSE stored and administered the reported financial data of the other organizations. I conducted this research study employing secondary data of varying types from two sources. I retrieved the financial and governance data as presented for the period from January 2013 to December 2014 from the respective websites of the sampled firms. The dependent variables (CR, CAs, CLs, and CCC) were obtained from the NSE website to aid in the computation of various working capital ratios adopted in testing the study hypotheses.

Data Analysis: Descriptive Statistics

In this section, I will report the descriptive statistics of the sampled Nigerian organizations based on the mean, median, and standard deviation of CAs, CLs, CR, CCC, and SG. In this study, I based the descriptive statistical tests on central tendency and dispersion measures that are appropriate for categorical and continuous variables. I concluded with linear relationship analysis and the results of regression for CEO tenure, CEO duality, BS, and the AC size of the sampled Nigerian firms.

CAs

The CAs of the 84 Nigerian organizations included in this study are shown in Table 2. On average, the sampled Nigerian firms had a CAs level of 6.7%. Some firms operated with a current asset level of 4.37%, while others achieved a maximum current asset level of 8.28%. Table 2 indicates a large range and a large dispersion of CAs (*SD* of .077 or 77%). Figure 2 shows that approximately 6.05% and 6.25% of firms had 2% CAs as the largest group. Table 2 also reveals a *M* value of 6.7%, showing that the CA level is a positively skewed distribution, suggesting there were more Nigerian firms with CA levels greater than 4.37%.

Table 2

Descriptive Statistics

	N	Minimum	Maximum	*M*	*SD*	Skewness		Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Current assets	84	4.37	8.28	6.6913	.77370	-.197	.263	-.005
Current liabilities	84	4.87	8.62	6.6612	.81348	-.022	.263	-.348
Current ratio	84	.1	4.7	1.277	.7726	1.594	.263	4.210
Cash conversion cycle	84	-997	1363	36.60	255.466	.291	.263	13.717
CEO tenure	84	1	34	7.51	6.819	2.038	.263	4.009
CEO duality	84	0	1	.04	.187	5.095	.263	24.544
Board size	84	5	23	9.30	3.127	1.606	.263	4.281
Audit committee	84	2	6	5.35	.988	-1.054	.263	-.152
SG	84	-.46	1.20	.0655	.22491	1.653	.263	7.117
FS	84	4.76	8.96	6.9860	.76985	.170	.263	.351
Valid *N* (listwise)	84							

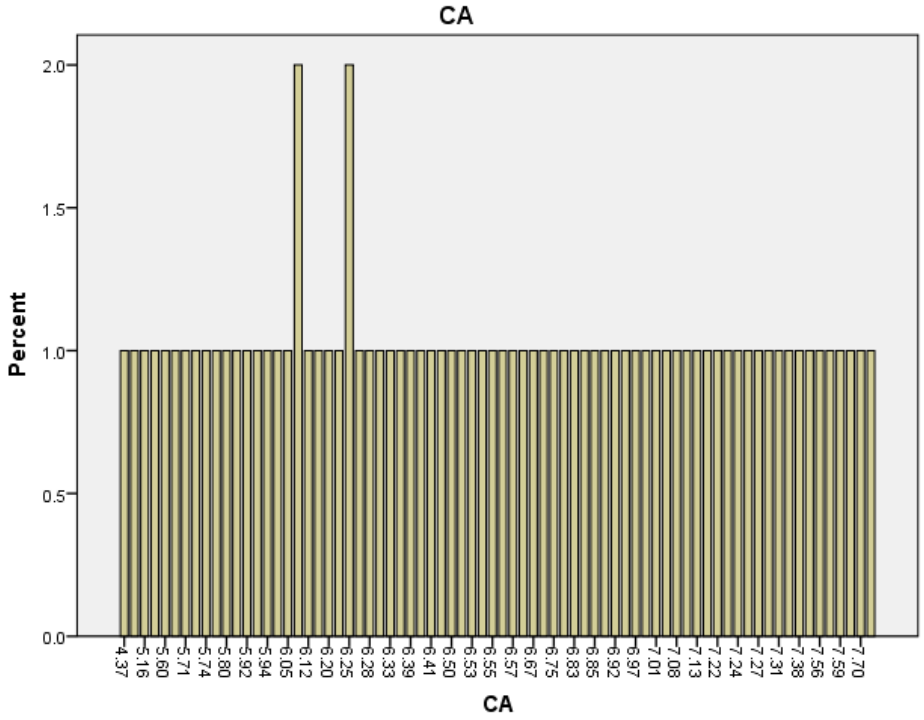

Figure 2. Bar graph showing central tendency and dispersion of CAs.

CLs

As indicated in Table 2, 84 Nigerian organizations reported their CLs, and on average, the sampled Nigerian firms had 6.7% CLs. Some firms operated with a minimum CLs level of 4.87%, while others achieved a maximum CLs level of 8.03%. The regression chart also indicated an extensive range and a large dispersion of CLs (*SD* of .81 or 81%). Figure 3 shows approximately 5.93% and 6.94% of firms had a 2% CLs as the largest group. Figure 4 also reveals a *M* value of 6.7%, showing that the CL level is a positively skewed distribution; this suggests that there were more Nigerian firms with CLs levels less than 6.7%.

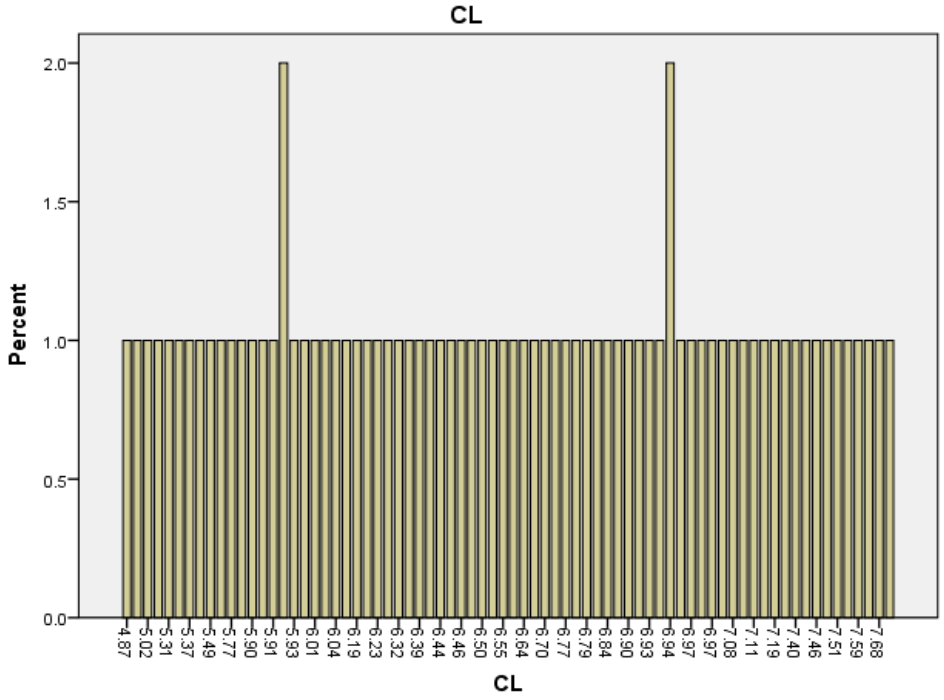

Figure 3. Bar graph showing central tendency and dispersion of CLs.

CR

As shown in Table 2, all the 84 sampled Nigerian organizations revealed a CR position. On average, the sampled Nigerian firms had 1.28% of CR position. The Nigerian companies computed number revolved between .10 and 4.60, suggesting that some companies had a CR of .10% while others operated with a CR of 4.70%. Figure 4 shows that one Nigerian organization had a current ratio of .10%. There were a considerable range and considerable dispersion of CR (*SD* of .80%). Nevertheless, as shown in Figure 4, the inner half of the computed value revolves between 1% and 1.7%.

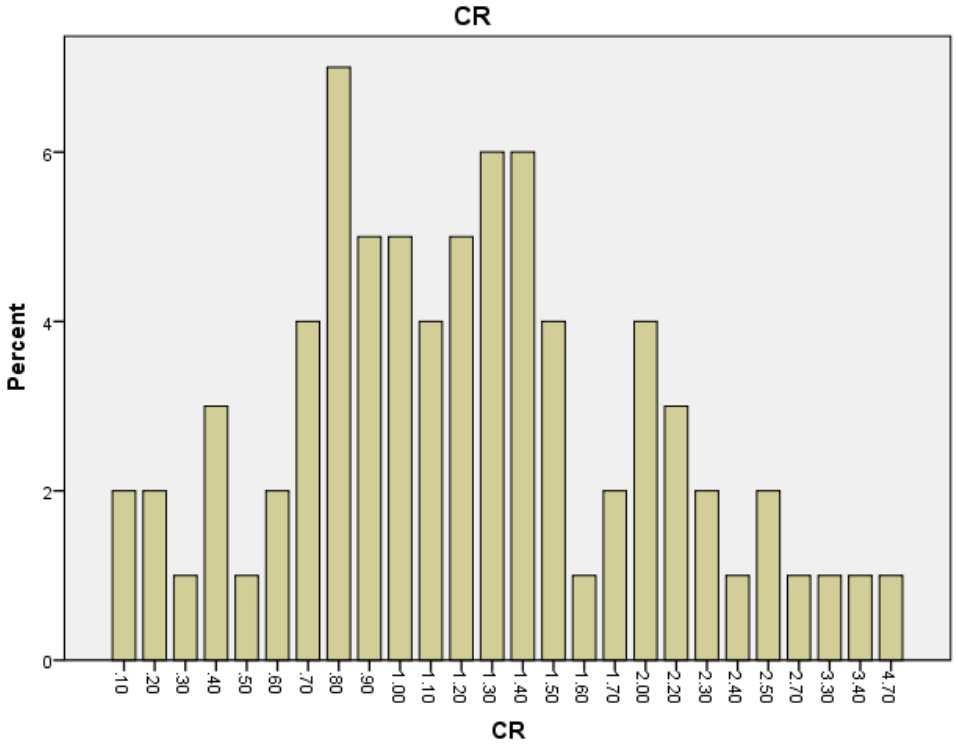

Figure 4. Bar graph showing central tendency and dispersion of CR.

CCC

A statistical chart of the CCC position of all 84 sampled Nigerian organizations is shown in Table 2. On average, the sampled Nigerian firms had a CCC position of 36.60 days. The computed days revolves between -997 and 1,363 days, suggesting that some companies had a cash conversion cycle of -997 days, while others operated within a period of 1,363 days. Figure 5 shows that one Nigerian organization had a cash conversion cycle of -997 days. There were a considerable range and considerable dispersion of CCCs (*SD* of 255.46 days). Nevertheless, as shown in Figure 5, the inner half of the computed value revolved around 37 days and 113 days.

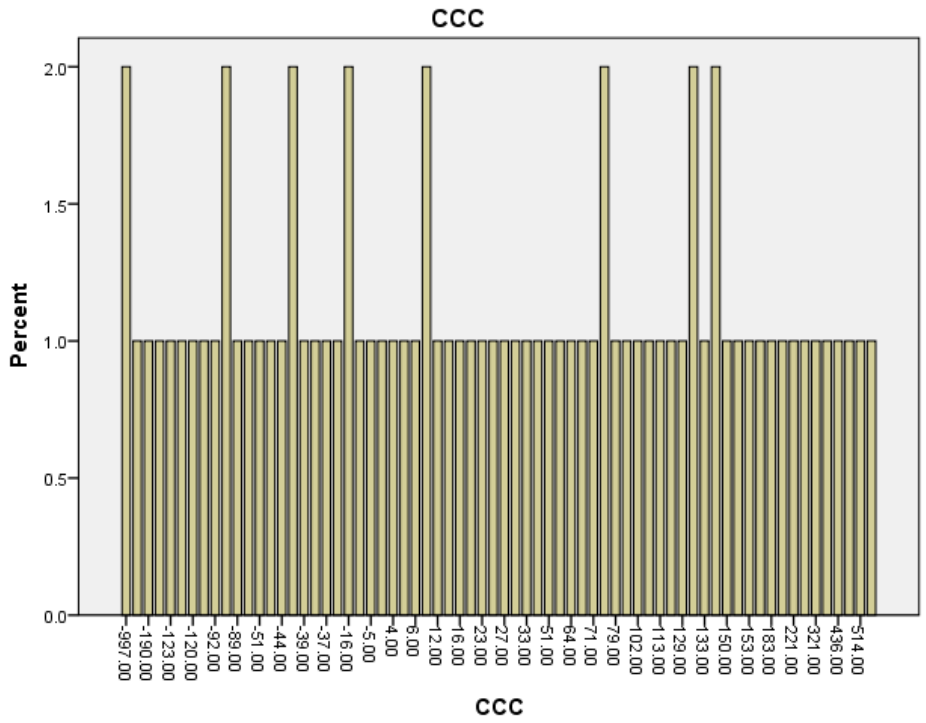

Figure 5. Bar graph showing central tendency and dispersion of CCC.

CEO Tenure

As shown in Table 2, all the 84 sampled Nigerian organizations revealed the duration of their CEO's tenure, and on average, the sampled Nigerian firms had 7.5one years of CEO tenure. The duration of tenure ranged from 1 to 34 years. Figure 6 shows that only one Nigerian organization had a CEO tenure of just one year. There were a range and dispersion of 7 years (*SD* of 7.5 years). Nevertheless, as shown in Figure 6, the inner half of the computed value ranged from 37 years to 113 years.

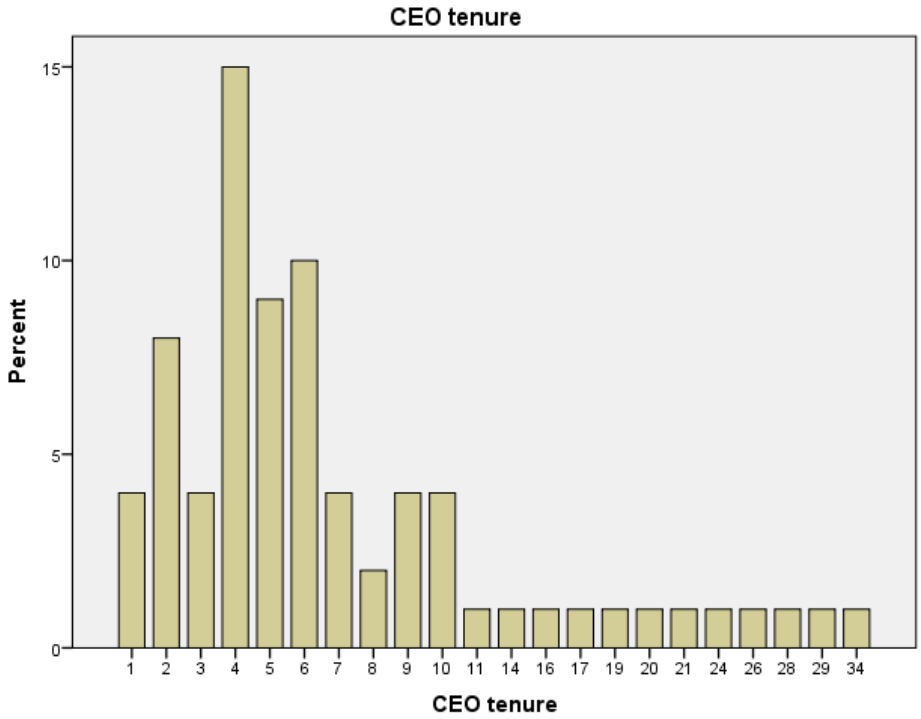

Figure 6. Bar graph showing central tendency and dispersion of CEO tenure duration.

CEO Duality

In the study, the descriptive statistical analysis in Figure 7 revealed the prevalence of CEO duality in the sampled Nigerian organizations. Three out of 84 Nigerian companies sampled had CEOs who were also the chairpersons of their respective boards. In other words, about 4% of the Nigerian organizations practiced CEO duality.

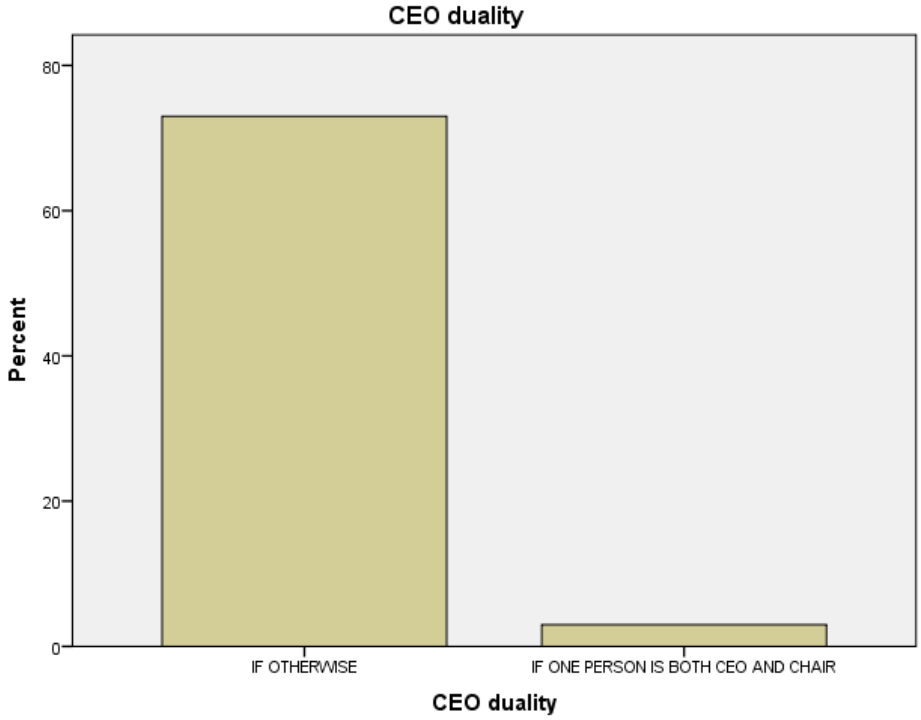

Figure 7. Bar graph showing CEO duality of Nigerian firms.

BS

As presented in Table 2, all Nigerian firms reported *BD* information. On average, the sampled Nigerian organizations had more than nine members (M = 9) on their respective boards. There were a large range and dispersion of number of members on the boards (*SD* of 3). The number of members was between five and 23. One company had five members on its board, while another company had 23 members on its board.

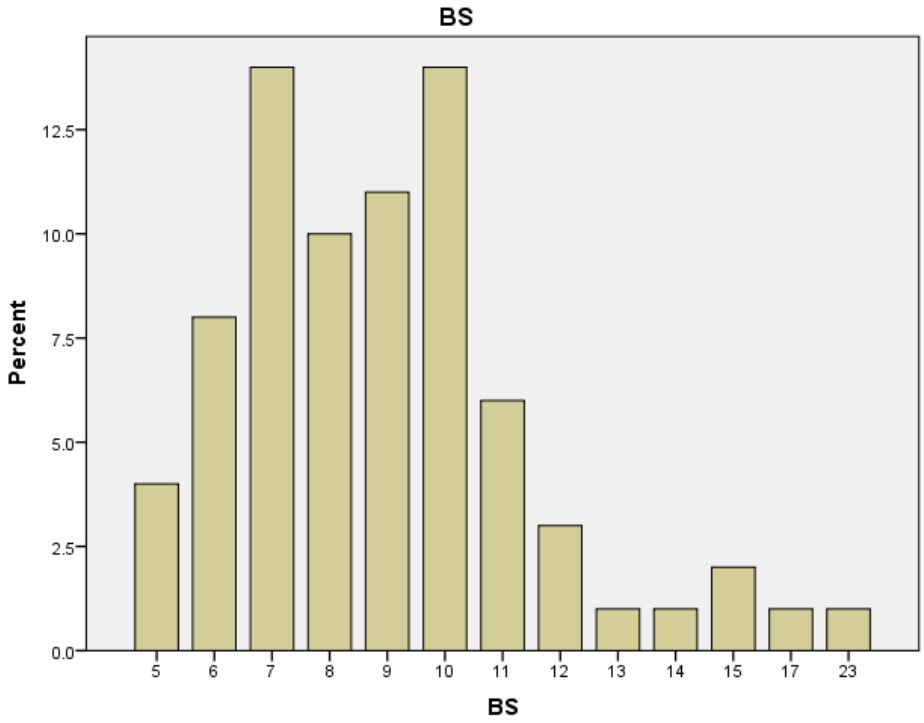

Figure 8. Bar graph showing central tendency and dispersion of BS.

AC

As presented in Table 2, all Nigerian firms reported AC information. On average, the sampled Nigerian organizations had more than five members (M = 5) on their respective committees. There was a large range and dispersion of committee members (SD of .98 or 98%). The number of members was between two and six. One company had two members on its audit committee, while another company had six members.

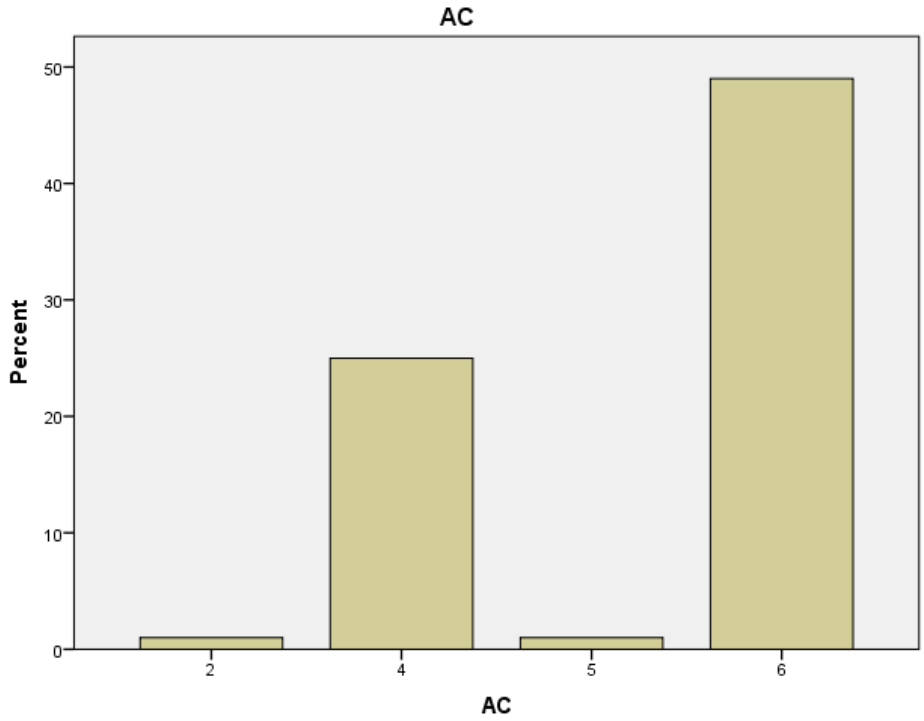

Figure 9. Bar graph showing central tendency and dispersion of AC size.

SG

As noted in Table 2, all the 84 sampled Nigerian organizations revealed a SG position. On average, the sampled Nigerian firms had a SG level of .066%. The SG rate of the sampled companies ranged from -.46% and 1.20%, suggesting that some companies had a SG rate of -.46%, while others operated with a SG rate of 1.20%. There was a considerable range and large dispersion of sales growth (SD of .22%). Nevertheless, as shown in Figure 10, the middle half of the computed value ranged from .03% and 1.4%.

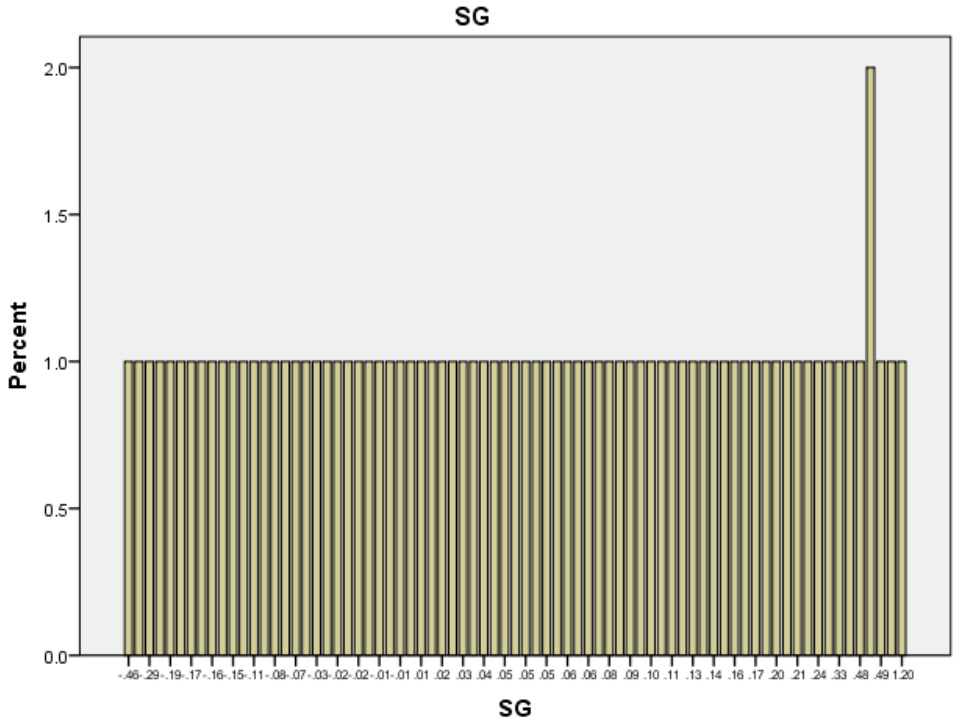

Figure 10. Bar graph showing central tendency and dispersion of SG**.**

Data Analysis: Valuation of Statistical Assumptions and Hypothesis Testing

In this part, I examine the SPSS outputs on the models shown to evaluate the level of compliance with the assumptions made in Chapter 3. I organized the analysis along the descriptions of the study hypotheses. In analyzing each model, I evaluated the extent to which the regression assumptions were met or violated. The principal of such assumptions included multicollinearity, independent variable, homoscedasticity, and the normality of distribution. I adopted plots and statistical numbers in assessing compliance with these assumptions.

Evaluating the Current Assets Regression Model

In Research Question 1, I explored whether there was a positive statistically significant association between corporate governance practices and current assets of

Nigerian organizations. The multiple regression model used CA as the dependent variable and CEO tenure, CEO duality, BS, and AC size as the independent variables, as well as other control variables. The model is below:

$CA = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit$ …… (12)

Where

α = Alfa,

TNit = CEO tenure,

CDit = CEO duality,

BSit = Board,

ACit = Audit committee,

β = Beta,

μit = the error

CA = Current Assets

The prediction of the outcome of current assets by the weighted combination for CEO tenure, CEO duality, BS and AC size was tested using an *f* distribution test and ANOVA, using a confidence interval alpha level of 5%. The null hypothesis stated that there was no significant statistical association between CEO tenure, CEO duality, BS, AC size, and CAs of the sampled Nigerian organizations, indicating that all the stated coefficients are zero and that,

$H1_o: \beta_1 = \beta 2 = \beta 3 = \beta 4 = 0$

The alternative hypothesis predicted that there was a significant positive association between CEO tenure, CEO duality, BS, AC size, and current assets of the

sampled Nigerian organizations, signifying that at least one of the variables belonged in the regression model. So,

$H1_o$: β_1 is not zero

The multiple regression analysis was conducted to evaluate whether CEO tenure, CEO duality, BS, and AC size predict the CAs of the sampled Nigerian organizations. The multiple regression results are shown below. The multiple regression equation with CAs as the dependent variable is presented as follows:

CA = 4.476-.016*TN+ .042*CD +.053* BS +.345*AC+ ε …… (13)

The correlation emanating from the multiple regression analysis indicated that the independent variables were highly correlated (F (4, 79) = 8.753, p < .001). Thus, I included all the independent variables in the analysis. Table 4 shows that the p-value for CEO tenure, CEO duality, BS, and AC size was <.001. Therefore, I rejected the null hypotheses that $b_1=b2=b3=b4= 0$. Thus, CEO tenure, CEO duality, BS, and AC size were statistically significant and could explain 27% of the variance in the dependent variable CAs (adjusted R square = .272). Only two of the variables significantly contributed to the regression model: BS (β = .214, p <. 05) and AC size (β = .440, p <. 001). The constant, standardized errors, standardized betas, and their significance value are compiled in Table 5 below:

Table 4

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations	
		B	Std. Error	Beta	*t*	Sig.	Zero-order	Partial
1	(Constant)	4.476	.408		10.973	.000		
	CEO Tenure	-.016	.011	-.142	-1.454	.150	-.079	-.161
	CEO Duality	.042	.399	.010	.105	.917	-.018	.012
	Board Size	.053	.026	.214	2.068	.042	.381	.227
	Audit Committee	.345	.081	.440	4.245	.000	.488	.431

Table 5

ANOVA Table

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	15.258	4	3.815	8.753	.000[b]
	Residual	34.427	79	.436		
	Total	49.685	83			

Note: Dependent Variable: Current Assets. Predictors: (Constant), Audit Committee, CEO Duality, CEO Tenure, and Board Size.

Evaluation of Normality Assumption in the Current Asset Model

Another important assumption of the linear regression analysis is the normality of the distribution. Figures 11 to 13 present the histograms and the normal P-P plots of the dependent variables of current assets. Both the histograms and the normal P-P plots imply a nearly normally-distributed residual; hence, meeting the assumption of normally distributed errors.

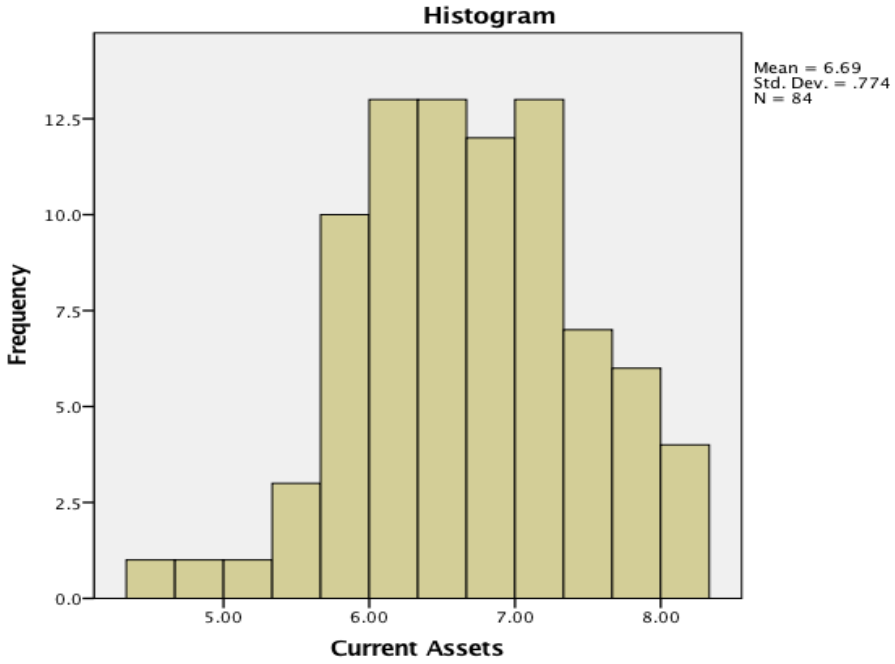

Figure 11. Histogram of distributed residual of CAs.

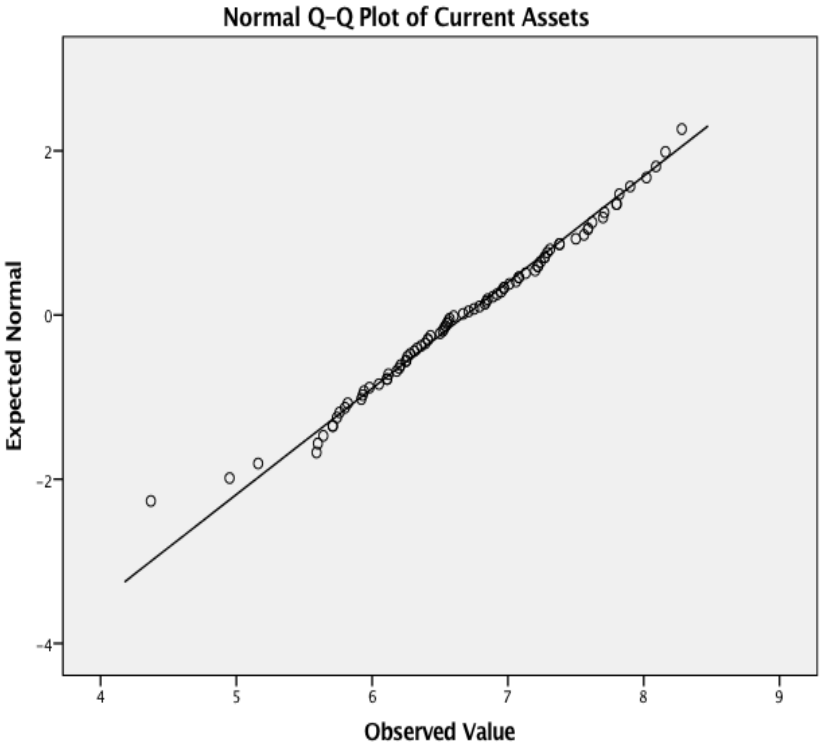

Figure 12. Normal P-P plot of distributed residuals of CA.

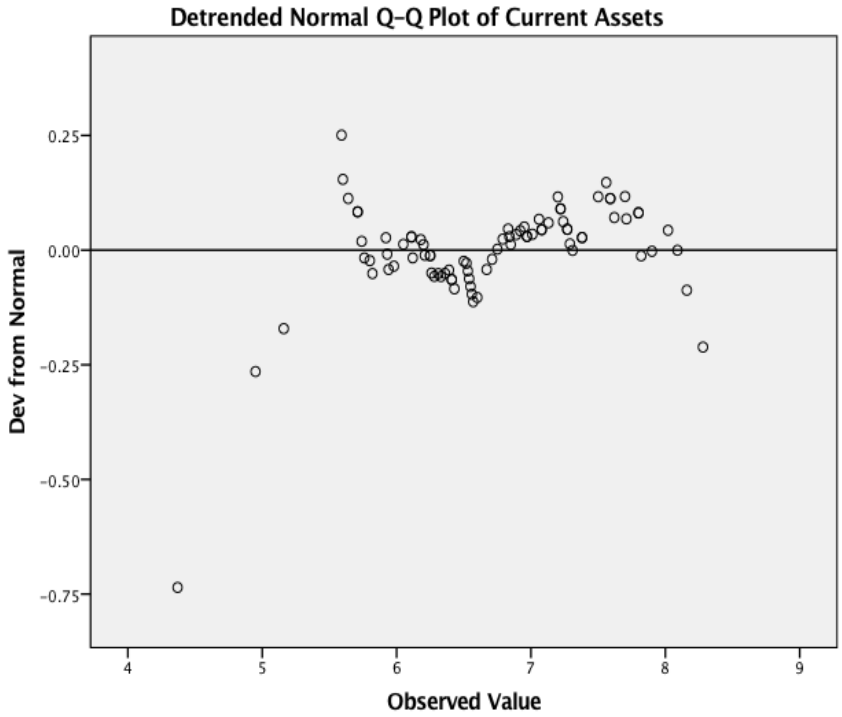

Figure 13. Detrended P-P plot of CA

The Assumption of Independent Variables: Categorical or Continuous

The predictor variable of CEO duality (Independent variable) was a categorical variable. BS, AC size, and CEO tenure were continuous variables. Therefore, the assumption of categorical or continuous level of independent variables justified the adoption of a regression analysis.

Test of Assumptions of Collinearity in the Current Asset Model

Tables 5 shows the correlation matrix of the multiple regression tests, which were adopted to explore whether there was a high correlation between CEO tenure, CEO duality, BS, AC size, and CA. I assessed multicollinearity through the correlation analysis at the beginning of the regression output. In correlation analysis, researchers

aim to see variables correlated at .3 and no higher than .7. In my analysis, only two variables showed a correlation above .3, signifying that multicollinearity is not an issue. The tolerance and VIF statistics in Table 9 below confirm this conclusion.

Table 6

Correlation: CA as the Dependent Variable

		Current Assets	CEO Tenure	CEO Duality	Board Size	Audit Committee
Pearson Correlation	Current Assets	1.000	-.079	-.018	.381	.488
	CEO Tenure	-.079	1.000	.146	-.108	.193
	CEO Duality	-.018	.146	1.000	-.163	.063
	Board Size	.381	-.108	-.163	1.000	.349
	Audit Committee	.488	.193	.063	.349	1.000
Sig. (1-tailed)	Current Assets	.	.239	.436	.000	.000
	CEO Tenure	.239	.	.092	.164	.039
	CEO Duality	.436	.092	.	.069	.285
	Board Size	.000	.164	.069	.	.001
	Audit Committee	.000	.039	.285	.001	.
N	Current Assets	84	84	84	84	84
	CEO Tenure	84	84	84	84	84
	CEO Duality	84	84	84	84	84
	Board Size	84	84	84	84	84
	Audit Committee	84	84	84	84	84

Evaluating the Current Liability Regression Model

In my Research Question 2, I asked whether there is a positive statistically significant association between corporate governance practices and current liability of Nigerian organizations. The multiple regression model used current liability as the dependent variable and CEO tenure, CEO duality, BS, and AC size as the independent variables, as well as other control variables. The model is below:

$CL = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit$ …… (13)

Where

α = Alfa,

TNit = CEO tenure,

CDit = CEO duality,

BSit = Board,

ACit = Audit committee,

β = Beta,

μit = the error

CL = Current Liability

The prediction of the outcome of CL by the weighted combination for CEO tenure, CEO duality, BS, and AC size was tested using an *f* distribution test and ANOVA at a confidence interval of the alpha level of 5%. My null hypothesis stated that there was no significant statistical association between CEO tenure, CEO duality, BS, AC size, and CL of the sampled Nigerian organizations, indicating that all the stated coefficients are zero and that,

$H2_o$: $\beta_1=\beta2=\beta3=\beta4= 0$

My alternative hypothesis predicted that there was a significant positive association between CEO tenure, CEO duality, BS, AC size, and CL of the sampled Nigerian organizations, signifying that at least one of the variables belongs in the regression model. So,

$H2_o$: β_1 is not zero

The multiple regression analysis was conducted to evaluate whether CEO tenure, CEO duality, BS, and AC size predict the CL of the sampled Nigerian organizations. The multiple regression results are shown in Table 7. The multiple regression equation with CL as the dependent variable is:

CL = 4.557+.284*AC- .016*CT + .138* CD +.075*BS+ ε …… (14)

The correlation emanating from the multiple regression indicated that the independent variables were highly correlated (F (4, 79) = 7.605, p <. 001). Thus, I included all the independent variables in the analysis. Table 8 and Table 9 show that the p-value for CEO tenure, CEO duality, BS, and AC size was <.001. Therefore, I rejected the null hypotheses that b_2=b2=b3=b4= 0. Thus, CEO tenure, CEO duality, board size, and audit committee size are statistically significant and can explain 24% of the variance in the dependent variable CL (adjusted R square = .241). Only two of the variables significantly contributed to the regression model: AC size (β = .345, p <. 01) and BS (β = .289, p <. 01). The constant, standardized errors, the standardized betas, and their significance value were compiled in Table 12 below.

Table 7

ANOVA Table

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	15.270	4	3.817	7.605	.000[b]
	Residual	39.656	79	.502		
	Total	54.926	83			

Note: Dependent Variable is Current Liabilities. Predictors: (Constant), Board Size, CEO Tenure, CEO Duality, and Audit Committee Size.

Table 8

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations	
		B	Std. Error	Beta	*t*	Sig.	Zero-order	Partial
1	(Constant)	4.557	.438		10.408	.000		
	Audit Committee	.284	.087	.345	3.259	.002	.422	.344
	CEO Tenure	-.016	.012	-.131	-1.318	.191	-.091	-.147
	CEO Duality	.138	.428	.032	.322	.748	-.013	.036
	Audit Committee	.075	.027	.289	2.737	.008	.418	.294

Table 9

Table Title

Model		Correlations	Collinearity Statistics	
		Part	Tolerance	VIF
1	(Constant)			
	Audit Committee	.312	.816	1.225
	CEO Tenure	-.126	.918	1.090
	CEO Duality	.031	.947	1.056
	Board Size	.262	.820	1.219

Evaluation of Normality Assumption in the Current Liability Model

Another important assumption of the linear regression analysis is the normality of the distribution. Figures 14 to 16 present the histograms and the normal P-P plots of the dependent variables of current liability. Both the histograms and the normal P-P plots implied a nearly normally-distributed residual; hence, meeting the assumption of normally distributed errors.

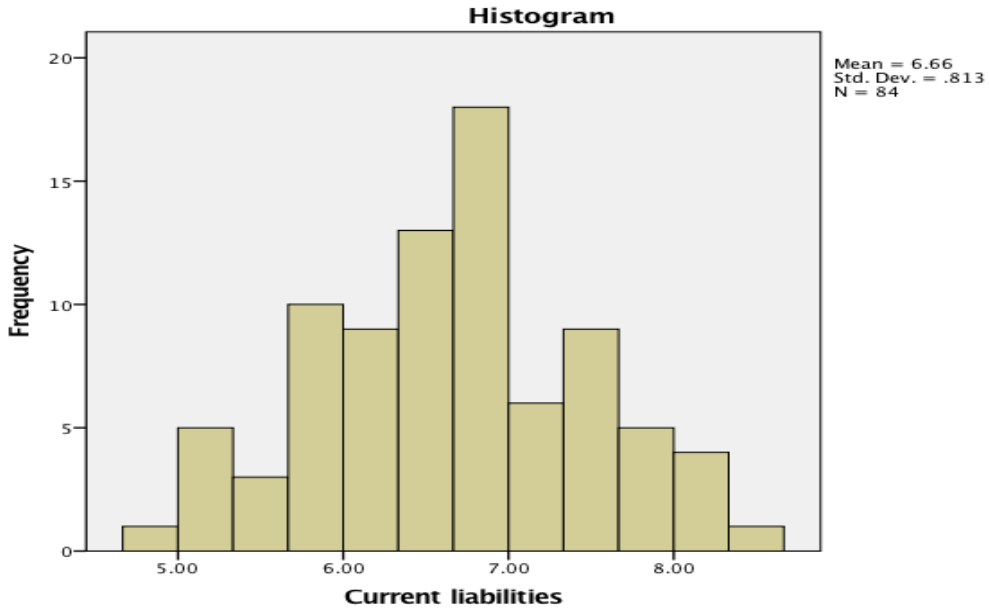

Figure 14. Histogram of almost normally distributed residual of CL.

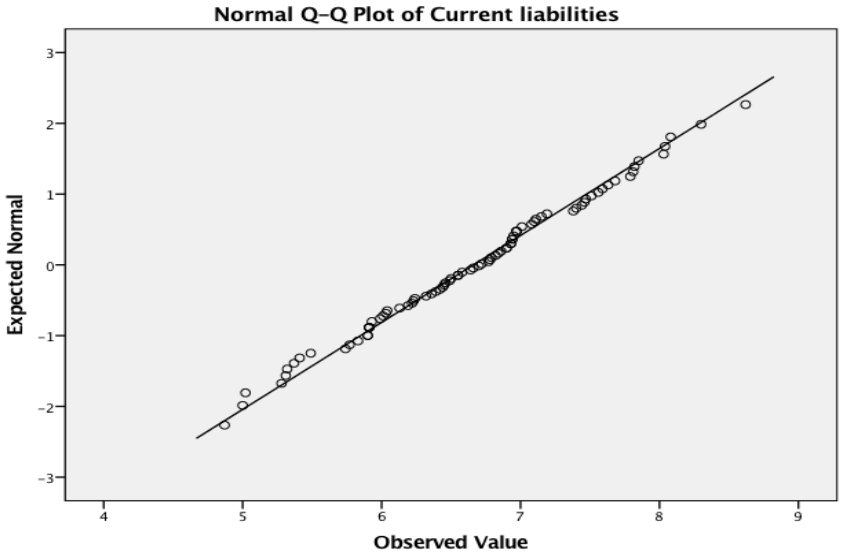

Figure 15. Normal P-P plot of CL.

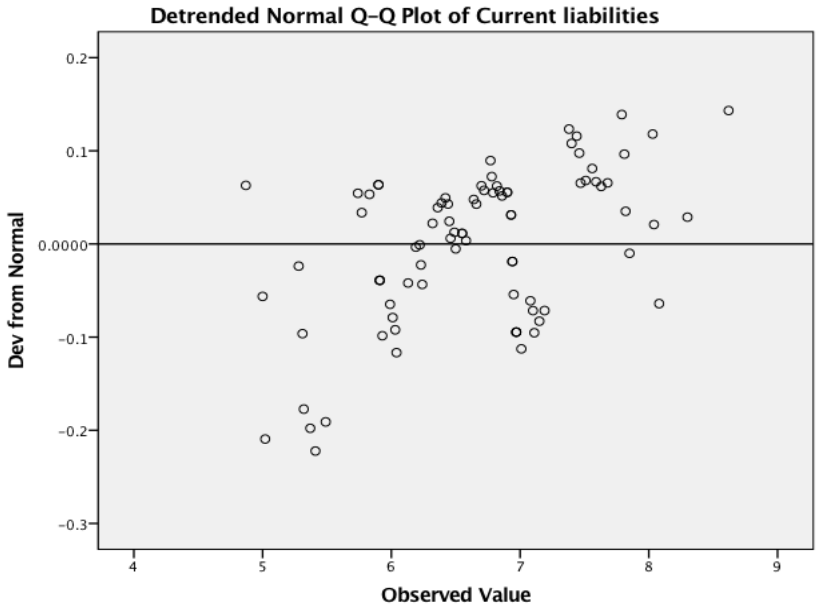

Figure 16. Detrended Normal P-P plot of CL.

Test of Assumptions of Collinearity in the Current Liability Model

Table 10 shows the correlation matrix of the multiple regression tests, which were adopted to explore whether there was a high correlation between CEO tenure, CEO duality, BS, AC size, and CL. I assessed multicollinearity through the correlation analysis at the beginning of the regression output. In correlation analysis, researchers aim to see variables correlated at .3 and no higher than .7. In the analysis, only two variables showed a correlation above .3, signifying that multicollinearity was not an issue. The tolerance and VIF statistics in Table 16 below confirm this conclusion.

Table 10

Correlation: CL as the Dependent Variable

		Current Liabilities	Audit Committee	CEO Tenure	CEO Duality	Board Size
Pearson Correlation	Current liabilities	1.000	.422	-.091	-.013	.418
	Audit Committee	.422	1.000	.193	.063	.349
	CEO Tenure	-.091	.193	1.000	.146	-.108
	CEO Duality	-.013	.063	.146	1.000	-.163
	Board Size	.418	.349	-.108	-.163	1.000
Sig. (1-tailed)	Current liabilities	.	.000	.204	.453	.000
	Audit Committee	.000	.	.039	.285	.001
	CEO Tenure	.204	.039	.	.092	.164
	CEO Duality	.453	.285	.092	.	.069
	Board Size	.000	.001	.164	.069	.
N	Current liabilities	84	84	84	84	84
	Audit Committee	84	84	84	84	84
	CEO Tenure	84	84	84	84	84
	CEO Duality	84	84	84	84	84
	Board Size	84	84	84	84	84

Evaluating the Current Ratio Regression Model

In Research Question 3, I asked whether there is a positive statistically significant association between CG practices and CR of Nigerian organizations. The multiple regression model used CR as the dependent variable and CEO tenure, CEO duality, BS, and AC size as the independent variables, as well as other control variables. The model is below:

$CR = \alpha + \beta_1 TNit + \beta 2CDit + \beta 3BSit + \beta 4ACit + eit$ …………………………………… (15)

Where

α = Alfa,

TNit = CEO tenure,

CDit = CEO duality,

BSit = Board,

ACit = Audit committee,

β = Beta,

μit = the error

CR = Current ratio

The prediction of the outcome of CR by the weighted combination for CEO tenure, CEO duality, BS, and AC size was tested using an *f* distribution test and ANOVA at a confidence interval of the alpha level of 5%. My null hypothesis stated that there was no significant statistical association between CEO tenure, CEO duality, BS, AC size, and CL of the sampled Nigerian organizations, indicating that all the stated coefficients are zero and that,

$H3_o$: $\beta_1=\beta2=\beta3=\beta4= 0$

My alternative hypothesis predicted that there was a significant positive association between CEO tenure, CEO duality, BS, AC size, and current ratio of the sampled Nigerian organizations, signifying that at least one of the variables belonged in the regression model. So,

$H3_o$: β_1 is not zero

The multiple regression analysis was conducted to evaluate whether CEO tenure, CEO duality, BS, AC size predict the CR of the sampled Nigerian organizations. The

multiple regression results are shown in Table 11. The multiple regression equation with CR as the dependent variable is:

CR = 1.215+.096*AC- .008*CT - .147* CD -.041*BS+ ε …… (16)

The correlation emanating from the multiple regression indicated that the independent variables were not highly correlated, F (4, 79) = .557, p = .694. Thus, I included all the independent variables in the analysis. Table 12 and Table 13 show that the p-value for CEO tenure, CEO duality, BS, and AC size was <.001. Therefore, I was unable to reject the null hypotheses that b3=b2=b3=b4=0. Thus, CEO tenure, CEO duality, BS, and AC size were statistically insignificant and could not be used to predict the dependent variable of CR. Negative adjusted R squared values suggested that a certain variable was bringing down the model. Therefore, this model was not appropriate for measurement and the hypothesis was rejected.

Table 11

ANOVA Table

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	149479.348	4	37369.837	.560	.692[b]
	Residual	5267348.890	79	66675.302		
	Total	5416828.238	83			

Note: The Dependent Variable is the Current Ratio. Predictors: (Constant), Audit Committee Size, CEO Duality, CEO Tenure, and Board Size.

Table 12

Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations	
		B	Std. Error	Beta	*t*	Sig.	Zero-order	Partial
1	(Constant)	-40.930	159.570		-.256	.798		
	CEO Tenure	.899	4.339	.024	.207	.836	.057	.023
	CEO Duality	-81.790	156.013	-.060	-.524	.602	-.024	-.059
	Board Size	-11.976	10.008	-.147	-1.197	.235	-.093	-.133
	Audit Committee	34.618	31.762	.134	1.090	.279	.084	.122

Table 13

Table Title

Model		Correlations	Collinearity Statistics	
		Part	Tolerance	VIF
1	(Constant)			
	CEO Tenure	.023	.918	1.090
	CEO Duality	-.058	.947	1.056
	Board Size	-.133	.820	1.219
	Audit Committee Size	.121	.816	1.225

Evaluation of Normality Assumption in the Current Ratio Model

Another important assumption of the linear regression analysis is the normality of the distribution. Figures 17 to 19 present the histograms and the normal P-P plots of the dependent variables of CR. Both the histograms and the normal P-P plots implied a nearly normally-distributed residual; hence, meeting the assumption of normally distributed errors.

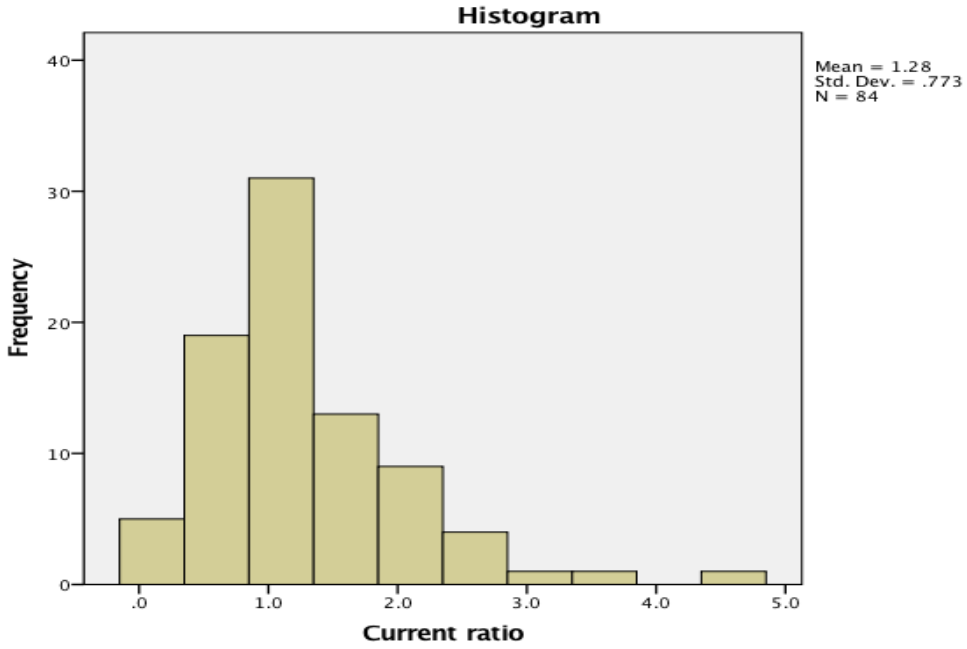

Figure 17. Histogram of almost normally distributed residual of CR.

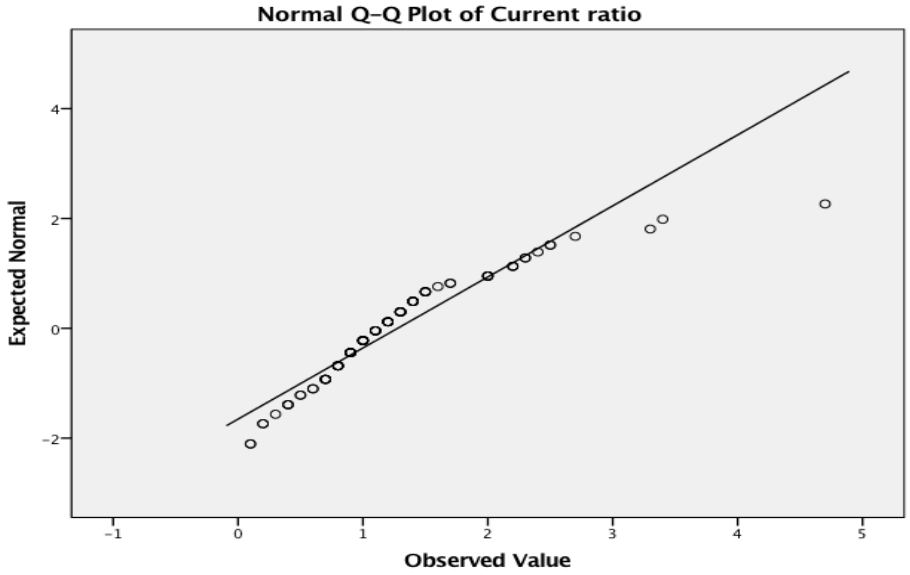

Figure 18. Normal P-P plot of almost normally distributed residuals of CR.

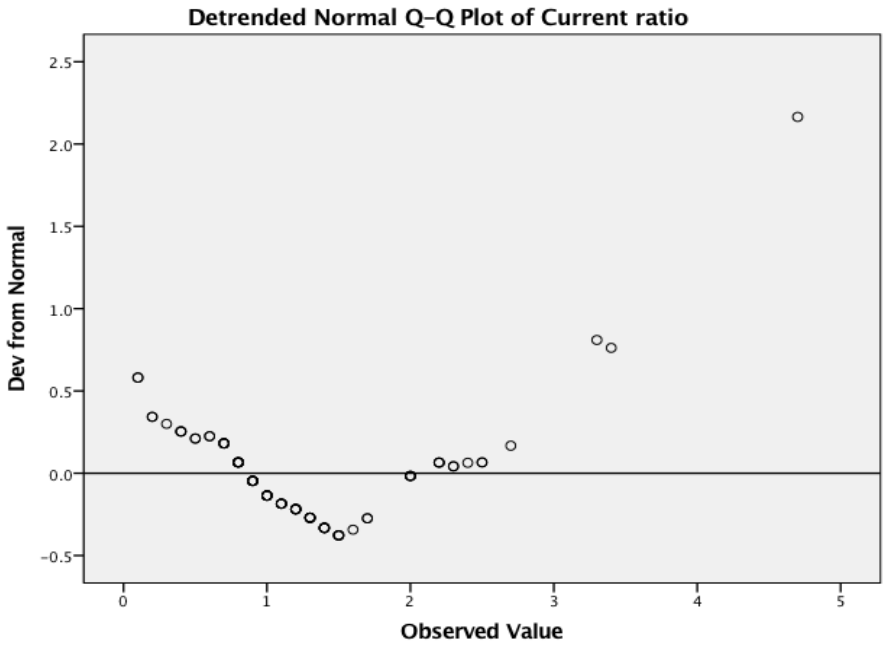

Figure 19. Detrended normal P-P plot of CR.

Test of Assumptions of Collinearity in the CR Model

Table 14 shows the correlation matrix of the multiple regression tests, which were adopted to explore whether there was a high correlation between CEO tenure, CEO duality, BS, AC, and CR. I assessed multicollinearity through the correlation analysis at the beginning of the regression output. In correlation analysis, researchers aim to see variables correlated at .3 and no higher than .7. In the analysis, only two variables showed a correlation above .3, signifying that multicollinearity is not an issue. The tolerance and VIF statistics in Table 14 below confirm this conclusion.

Table 14

Correlation: CR as the Dependent Variable

		Current ratio	Audit Committee	CEO Tenure	CEO Duality	Board Size
Pearson Correlation	Current ratio	1.000	.048	-.036	-.011	-.111
	Audit Committee	.048	1.000	.193	.063	.349
	CEO Tenure	-.036	.193	1.000	.146	-.108
	CEO Duality	-.011	.063	.146	1.000	-.163
	Board Size	-.111	.349	-.108	-.163	1.000
Sig. (1-tailed)	Current ratio	.	.331	.373	.460	.158
	Audit Committee	.331	.	.039	.285	.001
	CEO Tenure	.373	.039	.	.092	.164
	CEO Duality	.460	.285	.092	.	.069
	Board Size	.158	.001	.164	.069	.
N	Current ratio	84	84	84	84	84
	Audit Committee	84	84	84	84	84
	CEO Tenure	84	84	84	84	84
	CEO Duality	84	84	84	84	84
	Board Size	84	84	84	84	84

Evaluating the CCC Regression Model

In Research Question 4, I explored whether there is a positive statistically significant association between CG practices and the CCC of Nigerian organizations. The multiple regression model used the CCC as the dependent variable and CEO tenure, CEO duality, BS, and AC size as the independent variables, as well as other control variables. The model is below:

$$CCC = \alpha + \beta_1 TNit + \beta 2 CDit + \beta 3 BSit + \beta 4 ACit + eit \quad \ldots\ldots (17)$$

Where

α = Alfa,

TNit = CEO tenure,

CDit = CEO duality,

BSit = Board,

ACit = Audit committee,

β = Beta,

μit = the error

CCC = Cash conversion cycle

The prediction of the outcome of CCC by the weighted combination for CEO tenure, CEO duality, BS, and AC size was tested using an *f* distribution test and ANOVA at a confidence interval of the alpha level of 5%. My null hypothesis stated that there was no significant statistical association between CEO tenure, CEO duality, BS, AC size, and CCC of the sampled Nigerian organizations, indicating that all the stated coefficients are zero and that,

$H4_o$: $\beta_1=\beta2=\beta3=\beta4= 0$

My alternative hypothesis predicted that there was a significant positive association between CEO tenure, CEO duality, BS, AC size, and CCC of the sampled Nigerian organizations, signifying that at least one of the variables belonged in the regression model. So,

$H4_o$: β_1 is not zero

The multiple regression analysis was conducted to evaluate whether CEO tenure, CEO duality, BS, and AC size predicted the CCC of the sampled Nigerian organizations. The multiple regression results are shown in Table 15. The multiple regression equation with cash conversion cycl**e** as the dependent variable is:

CCC = -040.930+.899*TN- 81.790*CD - 11.976* BS +34.618 *AC+ ε …… (18)

The correlation emanating from the multiple regression indicated that the independent variables were not significant (F (4, 79) = .560, p = .692). Thus, I included all the independent variables in the analysis. Table 16 and Table 17 show that the p-value for CEO tenure, CEO Duality, BS, and AC size was > .001. Therefore, I could not reject the null hypotheses that b4=b2=b3=b4=0. Thus, CEO tenure, CEO duality, BS and AC size were not statistically significant and could not be used to predict the dependent variable of the CCC. The combination of these variables explained -2% of the variance in the dependent variable CCC. A negative adjusted R squared values suggested a certain variable was bringing down the model. Therefore, this model was not appropriate for measurement and the hypothesis was rejected.

Table 15

ANOVA Table

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	149479.348	4	37369.837	.560	.692[b]
	Residual	5267348.890	79	66675.302		
	Total	5416828.238	83			

Note: The Dependent Variable is the Cash Conversion Cycle. Predictors: (Constant), Audit Committee, CEO Duality, CEO Tenure, and Board Size.

Table 16

Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations	
		B	Std. Error	Beta	*t*	Sig.	Zero-order	Partial
1	(Constant)	-40.930	159.570		-.256	.798		
	CEO Tenure	.899	4.339	.024	.207	.836	.057	.023
	CEO Duality	-81.790	156.013	-.060	-.524	.602	-.024	-.059
	Board Size	-11.976	10.008	-.147	-1.197	.235	-.093	-.133
	Audit Committee	34.618	31.762	.134	1.090	.279	.084	.122

Table 17

Table Title

Model		Correlations	Collinearity Statistics	
		Part	Tolerance	VIF
1	(Constant)			
	CEO Tenure	.023	.918	1.090
	CEO Duality	-.058	.947	1.056
	Board Size	-.133	.820	1.219
	Audit Committee Size	.121	.816	1.225

Evaluation of Normality Assumption in the CCC

Another important assumption of the linear regression analysis is the normality of the distribution. Figures 20 to 22 present the histograms and the normal P-P plots of the dependent variables of cash conversion cycle. Both the histograms and the normal P-P plots implied a nearly normally-distributed residual; hence, meeting the assumption of normally distributed errors.

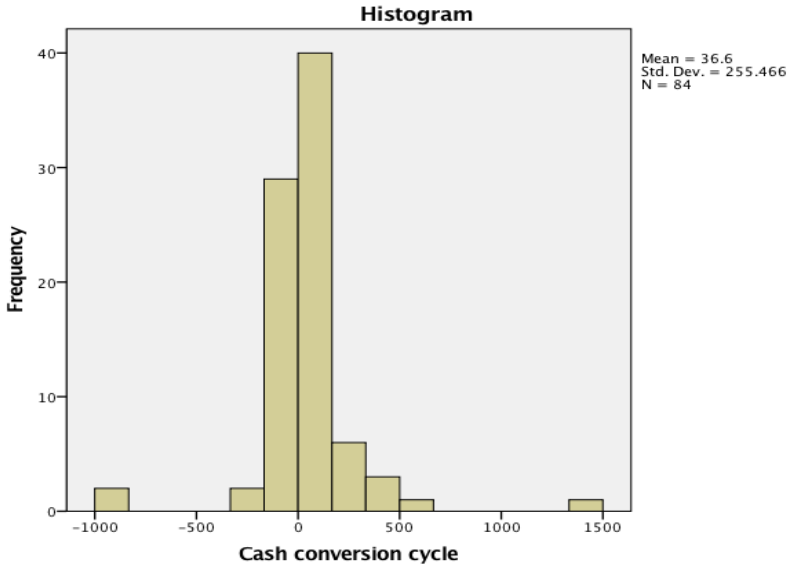

Figure 20. Histogram of distributed residual of cash conversion cycle.

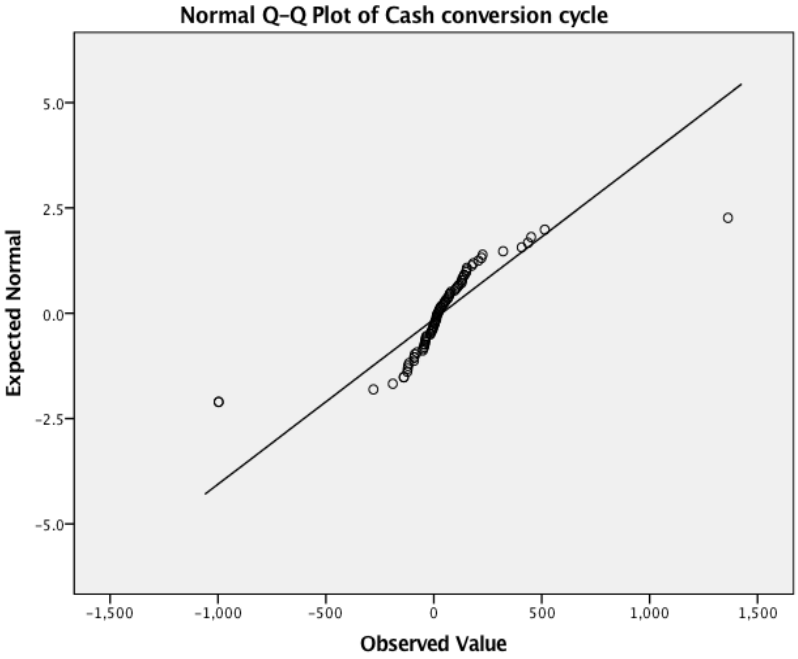

Figure 21. Normal P-P plot of distributed residuals of CCC.

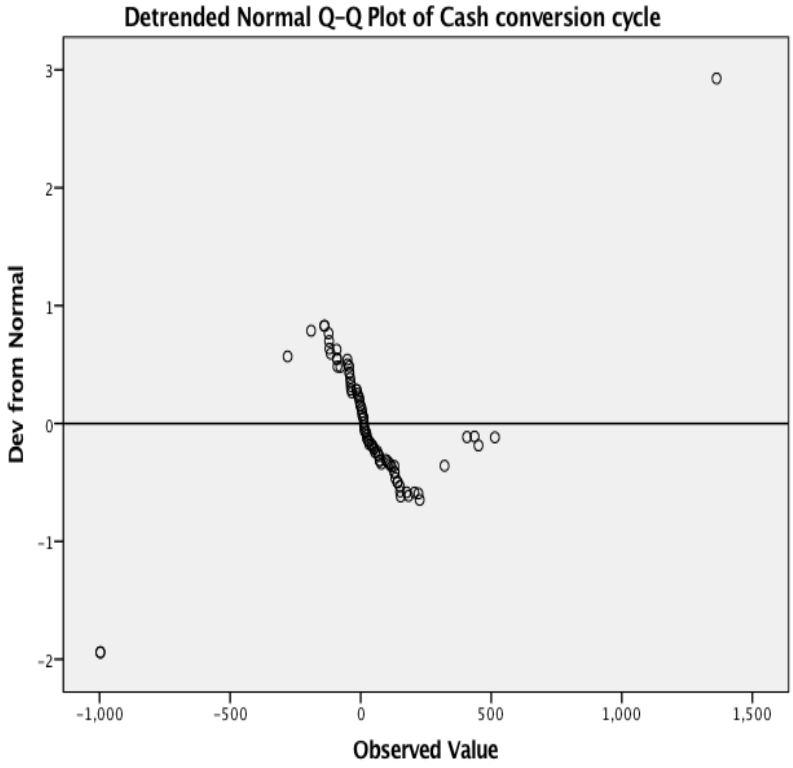

Figure 22. Detrended P-P plot of CCC.

Test of Assumptions of Collinearity in the CCC Model

Tables 18 show the correlation matrix of the multiple regression tests, which were adopted to explore whether there was a high correlation between CEO tenure, CEO duality, BS, AC size, and CCC model. I assessed multicollinearity through the correlation analysis at the beginning of the regression output. In correlation analysis, researchers aim to see variables correlated at .3 and no higher than .7. In the analysis, only two variables showed a correlation above .3, signifying that multicollinearity is not an issue. The tolerance and VIF statistics in Table 17 above confirm this conclusion.

Table 18

Correlation: Cash Conversion Cycle as the Dependent Variable

		Cash Conversion Cycle	CEO Tenure	CEO Duality	Board Size	Audit Committee
Pearson Correlation	Cash conversion cycle	1.000	.057	-.024	-.093	.084
	CEO Tenure	.057	1.000	.146	-.108	.193
	CEO Duality	-.024	.146	1.000	-.163	.063
	Board Size	-.093	-.108	-.163	1.000	.349
	Audit Committee	.084	.193	.063	.349	1.000
Sig. (1-tailed)	Cash conversion cycle	.	.303	.414	.201	.225
	CEO Tenure	.303	.	.092	.164	.039
	CEO Duality	.414	.092	.	.069	.285
	Board Size	.201	.164	.069	.	.001
	Audit Committee	.225	.039	.285	.001	.
N	Cash conversion cycle	84	84	84	84	84
	CEO Tenure	84	84	84	84	84
	CEO Duality	84	84	84	84	84
	Board Size	84	84	84	84	84
	Audit Committee	84	84	84	84	84

Summary

The results of the analysis showed that some of the independent variables had a significant impact on the working capital management performance of Nigerian organizations. The findings of the study are summarized as follows:

1. No significant association was found between CEO tenure, CEO duality, and CAs of Nigerian organizations. The results showed a significant relationship

between BS, AC size, and CA of Nigerian organizations, although it was a positive relationship.

2. No significant association was found between CEO tenure, CEO duality, and the CL of Nigerian organizations. The results showed a significant association between AC size, BS, and the CL of Nigerian organizations.
3. No significant relationships were found between CEO tenure, CEO duality, BS, AC size, and the CR of Nigerian organizations. The results showed that this model is not appropriate for measurement and thus, the hypothesis was not accepted.
4. No significant relationships were found between CEO tenure, CEO duality, BS, AC size, and the CCC of Nigerian organizations.

The results showed that this model is not appropriate for measurement and thus, the hypothesis was not accepted. The results of the study revealed that board size and audit committee size have an impact on the CA and CL of Nigerian organizations. In Chapter 5, I will present an overview of the study, its findings, implications, and recommendations for future investigators in the field to further pursue other factors that could influence the working capital management efficiency of Nigerian organizations.

Chapter 5: Discussion, Conclusions, and Recommendations

Summary of Findings

In this quantitative research study, I examined the association between CG and WCM of Nigerian organizations, through analysis of data from 2013–2014. The objective of the study was to examine the impact of CG on WCM, assessing the extent to which CG could gauge WCM efficiency. The value of sound CG introduced the platform for effective financial management decisions. In their study, Gill and Biger (2013) examined the effects of CG on the management of working capital efficiency. Their results showed that CG plays a vital role in enhancing working capital efficiency. CG suggests that plans should be carried out in line with short, medium, and long-term goals of the company with shareholder's interest (Achchuthan & Rajendran, 2013). WCM is a short-term mechanism of firms that is vital for financial management decisions. Working capital influences liquidity and profitability, contributing to a firm's value (Bagchi & Khamrui, 2012). Raheman et al. (2010) viewed working capital as a fundamental determinant for sustaining liquidity, survival, and profitability. Through CG practices, Nigerian firms can find a strong framework for the management of working capital. To conclude, this study on CG practices among Nigerian firms added to the existing empirical work.

In this study, I investigated the impact of CG on WCM efficiency in organizations listed on the NSE, while devoting particular attention to the BS, CEO tenure, CEO duality, and AC size using data from 2013 to 2014. The challenges of working capital variance facing companies in Nigeria remained a source of concern following the 2007–

2008 financial crisis that led to the global economic meltdown as stated by Gbadamosi study. However, the question of whether sound policies of CG could stimulate the administration of working capital assets was an issue that had yet to be resolved by researchers. Moreover, scholar practitioners had not conducted empirical studies to understand the impact of CG on WCM efficiency, particularly in Nigerian organizations.

Taking into consideration the economic size, the potential impacts of liquidity on people and society, and the nature of Nigerian organizations, an effective CG strategy on WCM is paramount to survival and growth. In this study, I concentrated on the effects of CG on WCMs of Nigerian organizations, as measured by CAs, CL, CR, and CCC. The measurement was carried out by comparing the results of prior research studies grounded in the different views of the tradeoff theory, pecking order theory, free cash flow theory, agency theory, and stewardship theory. I reconciled these various theories with the notion that these approaches could work complementarily, and this notion served as the theoretical framework. In addition, I hypothesized that CEO tenure, CEO duality, BS, and AC size are inherent characteristics of the effective CG mechanism that would improve the WCM efficiency of Nigerian organizations.

I adopted a simple random sampling process to choose companies from the NSE database and website. The NSE administers the financial and stock market proceedings of organizations in Nigeria, comprising financial services, consumer goods, oil and gas, agriculture, conglomerates, construction, ICT, industrial goods, natural resources, healthcare, and services. My focus, however, necessitated the adoption of a correlational approach. To fulfill the purpose of the research, I developed four research questions.

With the research questions, I sought to establish whether there was linear relationship between:

1. CG practices and CAs,
2. CG practices and CLs,
3. CG practices and CR, and
4. CG practices and the CCC.

To broaden the scope of the research, I took a broader view of the measurement in all the research questions. For CEO duality, I assigned a value of 1 if the same person occupied the position of the chairman of the board and the CEO and a value of 0 if one person did not hold the position of the chairman of the board and the CEO. While the CEO tenure was the number of years the individuals concerned served as CEO. For BS, I counted the number of executives on the board; AC size consisted of the number of AC members.

The results of the study revealed a significant relationship between BS, AC size, and CAs and CL (positive correlation); no significant association was found between CAs, CL, and CEO tenure and CEO duality. The results of the study revealed that there was no relationship between CR and CCC and BS, AC size, CEO tenure and CEO duality.

CEO Tenure, CEO Duality, BS, AC Size, and CAs

The economic literature on the influence of CG on WCM is still very scant and inconclusive. Taking into consideration that WCM efficiency is contextually exclusive to each type of organization, I sought to explore the impact of CG on WCM of Nigerian

organizations. Based on the literature review presented in Chapter 2, I argued that BS, AC size, CEO tenure, and CEO duality are sound governance practices for the management of working capital assets. CG structures detail how the management of working capital policy is monitored and controlled (Fiador & Fiador, 2016). The monitoring and oversight of CG processes clearly relates to issues of CEO duality, CEO tenure, AC size, and the size of the board. However, in Chapter 4, with the multiple regression analyses I evaluated whether CEO tenure, CEO duality, BS, and AC size predicted the CAs of the sampled Nigerian organizations.

The model was significant (F (4, 79) = 8.753, p < .001); the combination of the variables explained 27% of the variance in the dependent variable of CAs. Only two of the variables significantly contributed to the regression model: BS (β = .214, p <. 05) and AC size (β = .440, p <. 001). The results as measured by CAs were consistent with conclusions of some past studies that CEO duality and CEO tenure had no relationship to the management of working capital (Gill & Shah, 2012; Krause et al., 2013; Lawal, 2013; Shuker, 2012; Valipour et al., 2012). BS and AC size did have a relationship to the management of working capital, which was also consistent with conclusions of some past studies (Gill & Shah, 2012; Krause et al., 2013; Lawal, 2013& Shuker, 2012).

Since I reached a conclusion consistent with my hypothesized prediction, the finding that CG impacts WCM efficiency serves as additional justification for the field since there are currently few studies on the impact of CG on WCM. Previous research studies revealed that the size of an organization and the size of its AC could have a positive influence on organizational performance (Gill & Shah, 2012; Krause et al.,

2013& Lawal, 2013). Bansal and Sharma (2016) asserted that committee members also act as an integral constituent of the company's board of directors, responsible for rolling out policies for improving the reporting health of the business. A small board could not fulfill diverse responsibilities, yet large boards accede to inefficiency due to differences in option when attempting to make effective decisions for the company; hence, BS improves the efficiency of WCM (Dittmar et al., 2003).

Al-Mamun et al. (2014) argued that regular meetings of the AC could help to minimize agency problems and ensure fair and up-to-date information to investors. Yunos (2014) then noted that if the AC is independent and their work honest, that the possibility of fraud is reduced. Therefore, I expected there would be a positive significant relationship between the AC size and BS in the management of working capital efficiency. The results of this study regarding the effects of board size and audit committee size confirmed the preceding conclusions. Based on the results of the statistical tests, I did find a significant relationship between BS, AC size, and WCM efficiency, as measured by the CAs.

CEO Tenure, CEO Duality, BS, AC Size, and CL

Based on the literature review presented in Chapter 2 and taking into consideration what past studies have done to research on the impact of CG on WCM, I argued that BS, AC size, CEO tenure, and CEO duality are sound governance practices for the management of working capital assets. Also, considering that WCM efficiency is contextually exclusive to each type of organization, I sought to explore the impact of CG on WCM of Nigerian organizations as measured by CL. Based the literature review

presented in Chapter 2, I hypothesized that there would be a positive relationship between BS, AC size, CEO tenure, CEO duality, and WCM. Predictably, the statistical test results that I presented in Chapter 4 revealed that BS, AC size, CEO tenure, and CEO duality were significantly related to WCM as measured by CL. The conclusion matched my hypothesized outcomes, and the results were also consistent with the conclusions of some past studies (Deloof, 2003; Gill & Shah, 2012; Krause et al., 2013; Lawal, 2013; Shuker, 2012; Valipour et al., 2012).

Furthermore, my results showed that having sound CG principles in organizations may always affect WCM efficiency. As measured by CL, the results of this study confirmed the predicted outcomes that BS, AC size, CEO tenure, and CEO duality have positive effects on WCM. However, the results of the study suggested that CL is significantly positively associated with WCM, which was the predicted conclusion that BS, AC size, CEO tenure, and CEO duality would have positive effects on WCM efficiency when measuring CL.

Since CL is measured using debt due within one year, it is possible that organizations in business for a long time can increase liquidity by taking out a CA to defray the cost of their CL and eventually incur little expenditures, causing small WCM assets. This positive situation explains the relationship between WCM efficiency as measured by current debt.

CEO Tenure, CEO Duality, BS, AC Size, and CR

Based on the literature review presented in Chapter 2 and taking into account what past studies have found on the impact of CG on WCM, I hypothesized that BS, AC

size, CEO tenure, and CEO duality are sound CG practices to manage working capital assets. Also, considering that WCM efficiency is contextually exclusive to each type of organization, I sought to explore the impact of CG on WCM of Nigerian organizations as measured by the CR. The reason for this assumption was that BS, AC size, CEO tenure, and CEO duality may promote an effective WCM efficiency of Nigerian organizations.

However, as the statistical test results in Chapter 4 indicated, BS, AC size, CEO tenure, and CEO duality were not significantly related to CR. Although this finding differs from the hypothesized claim, this finding was consistent with the conclusions of previous studies (Deloof, 2003; Gill & Shah, 2012; Krause et al., 2013; Lawal, 2013; Shuker, 2012; Valipour et al., 2012). Similarly, the results also suggested that adopting CG practices may not have any impact on the CR of Nigerian organizations.

Because I calculated CR by dividing CAs from CL, I expected that Nigerian firms might have different ways of measuring CRs, adopted for liquidity reasons. However, the results suggested that CRs were not related to CG tendencies. Importantly, the finding that there was no association between BS, AC size, CEO tenure, CEO duality, and CR of Nigerian organizations was consistent with the fact that larger and more experienced firms have a more significant CR that is often used to calculate liquidity.

CEO Tenure, CEO Duality, BS, AC Size, and CCC

Based on the literature review presented in Chapter 2, and considering what past studies have done to research the impact of CG on WCM, I hypothesized that BS, AC size, CEO tenure, and CEO duality are sound CG practices to manage working capital assets. Also, considering that WCM efficiency is exclusive to each type of organization,

I sought to explore the impact of CG on WCM of Nigerian organizations as measured by the CCC. The reason for this assumption is that BS, AC size, CEO tenure, and CEO duality may promote an effective WCM efficiency of Nigerian organizations.

However, as the statistical test results in Chapter 4 indicated, BS, AC size, CEO tenure, and CEO duality were not significantly related to the CCC. Although this finding differs from the hypothesized claim, the results were consistent with the conclusions of previous studies (Deloof, 2003; Gill & Shah, 2012; Krause et al., 2013; Lawal, 2013; Shuker, 2012; Valipour et al., 2012). Similarly, the results also suggested that adopting CG practices may not have any impact on the CCC of Nigerian organizations. There was evidence in the literature that an inefficient board, or a board with divergent views, may not have any impact on WCM efficiency of organizations. Because I measured CCC as the length of time required to sell inventory, receive goods from customers, and to pay bills without incurring late penalties, I expected that Nigerian firms might have different ways of measuring the CCC to take advantage of the small number in comparison to industrial average. However, the results suggested that the CCC was not related to CG tendencies. Importantly, the finding that there was no association between BS, AC size, CEO tenure, CEO duality, and the CCC of Nigerian organizations was consistent with the fact that increases in the CCC were provoked by poor CG policies regarding the management's working capital assets.

Additional Interpretations

Amarjit and Biger (2013) noted that corporate governance plays a dominant role in the management of working capital through the formulation of sound policies. The

important role that CEO duality, CEO tenure, BS, and AC size plays cannot be overemphasized. Gill and Shah (2012) echo this assertion that these different CG arms play a significant role in promoting the efficiency of WCM. In Chapter 4 of this study, 4% of the Nigerian organizations practiced CEO duality. On average, these firms had nine members (M = 9) on their boards, and between five and 23 members on their AC. I concluded that BS and AC size had a positive impact on WCM, as measured by CA and CL. However, CEO duality and CEO tenure did not have a positive influence on WCM due to the under-developed nature of Nigeria and the constraints of acquiring or sharing financial information. I therefore estimate that the number of Nigerian organizations adopting CG practices in making decisions concerning WCM will likely increase in the future. The average number of members on the board in the study is consistent with the initial hypothesis that companies in Nigeria would tend to have four to five members on their board. The results of this study indicated that 83 out of the 84 sampled Nigerian organizations had more than five members serving on their board. In addition, only 4% of organizations had the CEO serving on their boards. Previous studies indicated that CG boards normally constitute about 17 members; most Nigerian organizations had between five and 23 members. The results confirm that an effective BS should be between eight and twenty members to promote efficiency (Moody's Investor Service, 2014; Chubb Group of Insurance Companies, 2014).

Limitations of the Study

I limited my study to organizations operating in Nigeria for two reasons: (a) Nigeria is an emerging nation that lacks a comprehensive CG framework; and (b) I am

from Nigeria, and so it was suitable for me to conduct the study in my country of origin. I further confined the study to companies listed on the NSE, and limited my data to the period from 2013 to 2014. Hence, it would not be appropriate to generalize the findings and conclusion of this investigation to companies operating elsewhere. There were limitations regarding the adoption and use of secondary data not meant originally for this study. The use of data not related to this research was an inherent problem, since publicly reported information approximates the kind of data meant for testing a hypothesis. The use of secondary data that is not consistent with Nigerian organizations can possibly present errors to the conclusions of the study. For instance, Nigerian organizations are not used to the practice of CEO duality. The conclusions and generalizations of this study will apply to the Nigerian organizations alone. Also, because of the scope of the study, focusing on the relationship between BS, CEO tenure, CEO duality, and working capital efficiency, some variables such as organizational leverage and the identification of the CEO may not be present in the analysis model.

From inception, the plan was to randomize the sample, but this was not feasible because of an incomplete sampling frame. The sampling frame—i.e., the NSE—required that the sample be drawn from the list of companies that were on the NSE database. However, I discovered that many firms did not have complete financial information on the NSE database. Moreover, the outcomes of this study cannot be globally generalized since the researcher only sampled firms within the list of companies carrying out business in Nigeria. Conceivably, prospective researchers can add to the field of study by researching organizations based in other countries.

Recommendations for Further Research

As mentioned in the literature review in Chapter 2, there are few research studies on the impact of corporate governance on working capital management that concentrated on all sectors of the Nigerian economy. In fact, this was one of the gaps that led to the present study. Prior research studies explored the impact of CG on WCM of individual sectors of the Nigerian economy, making it difficult to address the distinctiveness of each firm and industry.

The results of the current research are unique to the Nigerian organizations. It was found that CG had a significant effect on the WCM efficiency of the Nigerian organizations. However, before the field reaches its final conclusions on these findings, further research is recommended to expand the scope of the study. The duration of 2 years covered in this study is hardly enough to reach a sound conclusion. Aside from increasing the extent of the research, other future researchers might seek to perform qualitative research to explore the specific purposes organizational practitioners attach to CG policies in the management of working capital activities. This understanding of WCM activities would help to triangulate the research with the existing results to produce a more reliable and complete finding. Finally, future researchers may want to replicate the study in other countries, using multidimensional ratings to measure the effect of CG on WCM (as was carried out in this study), or adopting other methodological approaches to measure the independent variable.

Implications for Social Change

It is evident that previous studies have not focused on the impact of CG on WCM (Nickerson, Yen & Mahoney, 2012). An oversight function on WCM is essential and significant to the continuation of the working capital process. I sought to contribute to the body of knowledge on Nigerian organizations. My study proceeded from the assumption that the successful management of working capital assets depends on the effectiveness of CG (Gill & Shah, 2012, p. 71). Further, the results of previous studies on CEO tenure, CEO duality, BS, and AC size have been ambiguous and unique to certain industries. This study generated findings as applied to Nigerian organizations in several industries.

Ademola (2014) noted that the challenges of working capital inconsistency facing Nigerian firms had remained a source of tremendous concern in the face of high competition. Ademola's assertion highlighted the importance of Nigerian organizations having effective governance practices. Walden University (2013) has defined social change as a commitment to improve the human and social situation to promote the worth, dignity, and the ultimate transformation of society. The results of this study may assist Nigerian organizations and practitioners alike to put in place appropriate governance mechanisms that would promote their corporate performance and satisfy oversight regulations.

The Sarbanes- Oxley Act of 2002 in the United States, the Australian Treasury report of 2002, and the United Kingdom review report by Higgs (2003) have all affected the external regulatory structures and conduct of various Nigerian organizations. The

developments of these oversight bodies have demonstrated the importance of effective governance. Walden University noted that social change is the commitment to improve the human and social situation, resulting in the ultimate transformation of the society (Walden University, 2013). Walden based their premise on the belief that knowledge is fundamental in promoting human rights. By examining governance practices on working capital management, my results may assist Nigerian organizations and their administrators to implement effective governance structures that would enhance oversight regulations and in turn contribute to the doctrine of corporate social responsibility (ASQ & Manpower Professional, 2010).

Therefore, my results may help Nigerian organizations adopt and operate an appropriate CG structure that will enhance their organizational effectiveness, aid business managers in their resource allocations, and allow them to continue their corporate social responsibility missions of providing services to the community and transforming the entire society. My results can assist Nigerian organizations or their administrators to justify and explain why they opt to operate with current CG structures. The results of this study, as shown in Chapter 4, suggest that Nigerian organizations could choose to operate with or without CEO duality and CEO tenure serving as members of the board. It is also important for managers of Nigerian organizations to realize that while CEO duality and CEO tenure do not affect CAs, CL, CR, or the CCC, BS and AC size do affect WCM efficiency.

Conclusions

Understanding the mechanism of the impact of CG will be critical to growth and sustainability of Nigerian organizations. Companies adopt and operate different CG structure (Mulili & Wong, 2011). Several approaches to CG exist, but the two methods adopted in this paper are agency theory and stewardship theory. Kiel and Nicholson (2003) described agency theory as the separation of ownership from control; the stewardship approach implies that professional managers must run a firm on behalf of the company owners. Top management is ascribed a significant ownership in the business to secure a positive correlation between governance practices and the volume of stock owned by senior management (Mulini & Wong, 2011). While the stewardship approach suggests that the board of directors and the CEO are inspired to act in the greatest interest of the business (Mulini & Wong, 2011), there are both positive and negative views of this argument. For instance, some structures believe that a CEO should occupy both the position of the CEO and the chairperson of the board while other structures argue that the CEO holding both positions might bestow immense power on the CEO to influence operational flow of the board and management. Pham (2015) concluded that CEO duality could interfere with the effectiveness of the board and distort the performance of the executive team. As per Krause (2013), researchers have concentrated their efforts on the influences of BS, AC size, CEO tenure and CEO duality on CG and still came up with inconclusive results. No researcher has taken the time to review the circumstances broadly in a developing world like Nigeria. Accordingly, my focus was to fill this gap in

the literature. This research study was unique in that it included all the CG practices in the determination of the WCM efficiency.

The results of this study are consistent with previous studies suggesting that CG has a relationship with WCM I found specifically that BS and AC size was significantly related to WCM, while CEO tenure and CEO duality were not related to WCM. Nigerian organizations are an integral part of the entire system that will aid business managers in allocating resources and continuing with their corporate social responsibility missions of providing services to their community and customers. The results of this study suggest that Nigerian organizations can decide to operate without having to concentrate their governance structure on CEO duality and CEO tenure but should give adequate attention to the implementation of BS and AC size in their management process.

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