Developing a model indicating the effect of Corporate Governance on Accounting Ratios and Firm Value of Firms listed on the Nigerian Stock Exchange

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Declaration

I Kola Benson Ajeigbe declare that this thesis submitted for the fulfilment of the Doctor of Philosophy at the Northwest University is wholly my own work, unless otherwise referenced or acknowledged, and it has never been submitted to any other academic institution.

Signature Date

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Abstract

The study empirically determined the impact and dynamic interaction amongst corporate governance, accounting ratios on the firm value of selected listed firms in Nigeria. It also studied the trend analysis of the selected sampled firms with a convenience sampling method. The study further theoretically investigated the selected firms' level of compliance to the 2016 code of corporate governance and the rate of disclosure of voluntary information in the financial statement of the companies.

Secondary data were employed in this study. Annual data on corporate governance variables and accounting ratio variables from 2008 to 2017 were sourced and computed from the annual reports of the sampled listed firms on the Nigerian stock exchange (NSE). The study covered 10 sectors out of total 11 sectors, as identified by the NSE. Tobin's q was employed as the dependent variable while board size, market capitalization, growth, director's remuneration, ROA, EPS, debt to equity ratio and current ratio were employed as explanatory variables. The variables were retrieved from the annual reports of the sampled companies and computed using their appropriate formulas. The computed data were analysed using Tables, Graphs, Descriptive Statistics, Panel Unit root, Pooled Ordinary Least Square, Pane Co-integration, Trend Analysis, Panel Vector Error Correction Mechanism (PVECM), Sensitivity Analysis, and System-Generalised Method of Moment (GMM). The study was also based on multi-theoretical foundation, which is the combination of Agency, Stakeholders, Agency Cost, Signaling, Legitimacy and Litigation Cost Theories. The study further developed Structural-Path-Analysis Model that helped to combine all the variables together in order to achieve the main objective of this study.

Findings from pooled OLS and the random effect revealed the same results. Only market capitalization revealed a positive and significant result while all other variables are positively related to firm value except growth and debt to equity ratio that are inversely related. Under system-GMM, all variables are positive and significant except market capitalization that reveal an inverse but significant relationship. The implication is that if good corporate governance has to be in place, the quality and number of boards that govern the company is very important because of its positive impact on the organization as a whole. Well-governed firms by the companies' boards of directors improve market capitalization, growth of the firm, returns on assets and ultimately improve and sustain firm value. Accounting ratios variables were all positively related to firm

value but only debt to equity ratio is significant at 1% while ROA and EPS are insignificant. This implies that both corporate governance variables and accounting ratios variables used in the study improves firm value.

The variables were then subjected to robustness test which revealed a robust result. Further result revealed that any shock from both corporate governance and accounting ratio variables actively responded to the shock immediately from the short run period to long run period. This confirms that the result is robust and that there is dynamic interaction among all the three variables employed for the study. Sensitivity analysis result revealed an improved result under pooled OLS and random or fixed effect especially when the variables are subjected to different dependent variables. This also confirmed that the result is robust.

The result from the trend analysis revealed very slow growth on average and the study attributed the general low result to poor corporate governance as an internal factor and other factors such as government policies, insecurity and poor governance etc. are from external environment. In particular, the graphs and charts showed better growth between 2008 and 2010 but worst result between 2011 and 2015. The majority of the companies showed a tremendous improvement from 2016 to 2017.

The study then recommended that companies should publish material issues that are not mandatory but crucial to stakeholders or that can help public to understand items in the financial statement. Furthermore, comprehensive accounting ratios that can show performance at a glance should be published alongside the main annual reports, which will improve the level of understanding of other stakeholders. Government should enact more laws that would enhance corporate governance practices and promote companies' compliance and disclosure rate in order to reduce the incidence of corporate failure. Subsequent studies on corporate governance, accounting ratios and firm value should be subjected to this finding in other countries to further consolidate these findings.

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CHAPTER 1: INTRODUCTION AND THE SCOPE OF THE STUDY

1.1 Introduction

The journey of corporate governance started as far back as the 1700s. It was traced to past failure documentation of South Sea bubble which revolutionized the laws and practices of business in England. This was followed by the 1929 stock market crash which caught the attention of many researchers. Earlier researchers such as Berle and Means (1930:54; 1932:1), Jensen and Mekling (1976:305), Agrawal and Knoeber (1996:377) and Jensen (1993:831) discovered agency problem as the main problem facing the management of companies. These authors highlighted the agency problem between the shareholders and management (agent) that led to shareholders incurring extra agency costs. Since then, effort to set up control mechanisms and solve the problem had been constant. Costs to every organization are very crucial because it has a direct correlation with firm value in which, if quality control mechanisms are not put in place, such firms may lose its value over the years. However, extant researchers argue that corporate governance is shifting from agency conflict to business owners demanding accountability, value sustainability, transparency, investor confidence from directors and other top managements (Oana, 2006:4).

Tornyeva and Wereko (2012:95) posit that the major cause of failure of so many well performing companies is the absence of good corporate governance. Generally, existing literature support the position that good corporate governance has a positive impact on firm performance; (Tornyeva and Wereko, 2012:95; Ahmed and Hamdan, 2015:44; Wakaisuka-Isingoma, 2016:11 and Love, 2011; OECD, 2009; Claessen and Fan, 2002:71; Duke II and Kankpang, 2011:47, and others). It has also become a relevant issue because of its direct link to the economic growth and development of any nation. In addition to the above, it is a general believed that good corporate governance is a vital factor in improving the value of a business. Scholars such as Gupta, Kennedy and Weaver (2009:293) added that the major impediment of corporate governance and the value of the firm could be linked with diverse corporate governance structures resulting from the dissimilar social, cultural regulatory and economic conditions of different countries. The correlation between corporate governance and the value of the business is a significant tool in formulating, planning resourceful corporate management and public regulatory rules and policies. However, from Klapper and Love (2004:89); and Beiner and Schmid (2005:57) also supported the idea that corporate governance plays an important role in improving the value of the firm irrespective of

social and cultural differences. This is because every nation has corporate code and the listing rules governing the corporate listed companies which are almost similar to every nation and which must be align with international governance rules.

On the other hand, to aid and increase good and quality corporate governance practices, stakeholders such as creditors, investors, managers, board of directors and others make use of accounting ratios for decision making process for them to analyze the financial situation of the company. Investors compare figures in the statement of financial position, income statement, notes to the financial statements ~~a~~nd other financial statement components for their investment decisions as argued by (Wahlen and Wieland, 2011:92 and Lev *et al*, 2010:780). Critical analysis of financial statement with the help of accounting ratios provide~~s~~ signals and direct investors to choose the right company to invest in. The external users that do not have access to company's information need to employ ratio analysis to avoid investing in an unprofitable investment as argued by Asiri and Hammed (2015:3). This is the reason why there should be assurance that financial reporting presents a true and fair view of the organization's economic activities as argued by (Ingram and Arbright, 2007:1). Mcleaney and Atrill (2005:1) reported that accounting ratios provide simple, easy and quick means of detecting financial health of a companies. It is simply a tool in the hand of managers to perform surgical operation for every company and other stakeholders to dissect financial statements. Some scholars like Nobes and Parkers (2006:1) argued that financial ratios are synonymous to accounting ratios. The quality of accounting ratios derive from the published financial statement helps investors to evaluate the firm's efficiency and effectiveness of its corporate governance. This can be in terms of its operations, management, and profitability and to determine the strength and weak points of the firm's operations.

In fact, this is reinforced by a constellation of research evidence from prior studies by Armed and Hamdan, (2015:44); Beiner and Schmid 2005:57; Klapper and Love (2004:89); and Tornyeva and Wereko (2012:1). Since the main aim of a business organization is to increase value, one of the ways through which value may be improved is effective corporate governance. Tornyeva and Wereko (2012:95) assert that the conundrum of poor corporate governance is a clear indicator for corporate failure. This study has become so relevant in the world today because of its direct link with economic growth, corporate failure rates and the development of nations worldwide. Due to corporate organizations controlling over 70% of any nation's economy, most failing organizations are a result of poor governance (Maune 2017:6). Additionally, it has also been observed that most

promising organizations could not sustain their value over time as a result of poor governance, thus leading to the sudden collapse of the company.

Accounting ratios are the language of the business and the only tool that connects the chairman, CEO, board of directors, other management teams and other stakeholders together as argued by (Enekwe, 2012:18). Good corporate governance also has a direct link with good and quality accounting ratios. On the other hand, accounting ratios are employed to study past trends, company present performance and may be given as an indication to project the future trends, performance or operations of a company and these acts as indications for plans and policies. It could be inferred that accounting ratios serve as a practical means of monitoring, detecting value created, improving performance and guiding the movement of firm value of a company for sustainability (Wahlen and Wieland, 2011:92).

Based on value maximization of firms, it starts with the foundation that firm's primary objective is to maximize profits (in the short term) or to maximize wealth (in the long-term), any decision taken by managements of the organizations or agents must be projected to boost shareholders' wealth in the long run. Wealth maximization does not denote maximizing shareholders' wealth alone; it spread out to maximizing the stake of other stakeholders like the debt and warrant holders (Jensen, 2001:4). However, the study therefore shed more light on how good corporate governance can be attained to have an improved accounting ratios that boost investors confident and help to create and sustain firm value.

1.2 Problem Statement

Corporate governance has turned out to be one of the most contemporary topics in the recent business world today. Corporate governance is seen as a fundamental factor that improves firm value. Past studies saw the agency problem as the main problem facing companies, which is as old as the existence of governance. There has always been some conflict between managers and shareholders, resulting from differences in their aims and objectives. Control mechanisms to solve the problem have been a constant effort. Various studies with different opinions have been performed, but it seems the rivalry between the two parties will continue to remain because of their different objectives. There is also a recent shift from agency conflict to business owners (shareholders) and other stakeholders demanding accountability, transparency and sustainability

of value created by firms from the corporate board of directors and other members of management (Burlac 2006:4).

The series of widely cases of accounting frauds recorded in the Nigerian in 2008 followed by collapse of the Nigeria stock market in 2009, high incidence of corruption in the Nigeria business world brings the question of whether good corporate governance is in place or not. For example the failure of many famous corporations like Oceanic Bank, Intercontinental Bank, Union Bank, Dunlop Nigeria, Afri Bank, Fin Bank, Michelin Nigeria, Nigeria Airway, Peugeot Automobile Nigeria, Volkswagen Nigeria, BATA, Steel rolling mill, Osogbo and Ajaokuta, Arewa Swiss lace, AG Leventis etc suggest the need for companies governance to undergo further modifications to protect the shareholders interest in order to improve accountability, transparency, and sustainability of value created to guarantee shareholders reliance on their directors. This has elicited in a growing attention to corporate governance in Nigeria and the world at large. The failure and collapse of corporations have increased interest of researchers and prompted the director and other managements of companies to be more careful in their operation and to be more transparent, accountable and also to call for more active efforts in creating more principles and models of corporate governance. Most corporate failures relate to the lackadaisical attitude by the boards of directors regarding their oversight function, CEO and directors who are not well remunerated, the board surrendering control to company's managers or CEO who pursue their own self-interests and the board being negligent in its accountability to stakeholders (Uadiale, 2010:155; Uwuigbe, Peter and Oyeniyi, 2014:160 Ene and Bello, 2016:101).

The corporate failures in 2002 (Enron which cost $63.4 billion, WorldCom in the USA and Parmalat in Italy) is also a remarkable one that really shook the world market which led to economic meltdown and had negative effect on Nigeria economy. This has made it a vital issue, with regulatory authorities and governments making efforts to set up strict governance rules and laws to guarantee the smooth running of firms, prevent such reoccurrence and ensure going concern of firms. The example of those laws is Sarbanes-Oxley act that was passed by USA congress in order to protect and guide the public, entrepreneur and shareholders from any subsequent accounting improprieties and fraudulent practices in companies and to improve the accuracy of all accounting entries and other corporate disclosures. The economic security of a country is a function of its companies' performance and thus the low level of performance of developing nations can be linked to poor corporate governance practices (OECD, 2009: 49). As a

result, World Bank and other writers have identified those countries as having insufficient ability to effectively manage their resources. Hence, the achievement of good corporate is the most important problem facing the developing countries, such as Nigeria (Tornyeva and Wereko, 2012:95).

The global trend in corporate failure has raised concerns about why corporate organization fail despite implementing and practicing of corporate governance around the world. (Wilcox, 2017:389; Lakshan and Wijekoon, 2013:38). In Nigeria in particular, poor corporate governance also contributed to the present poor economic system leading to recession in the country, increasing unemployment rate, increasing the level of poverty, collapsed of capital market, increasing in the crime rate, increasing in rate of corruption and reduction in rate of tax earnings. In general, poor corporate governance resulting to poor performance and poor accounting ratios which has resulted into manager introducing cosmetic accounting, window dressing to financial records has led to failure of many businesses. Other variables like insecurity, poor power supply, poor governance, high cost of governance and corruption e.t.c are also associated to poor performance of companies and have been a great menace in almost all developing countries (Mbat and Eyo, 2013:19). However, these other identified variables had been covered by literatures although not fully covered. The bone of contention is that presently Nigeria is experiencing recession and this has led to the country losing majority of her firms to neighboring countries recently, those firms were forced to relocate to neighboring countries due to harsh business environment and poor corporate governance.

This study also linked corporate governance with accounting ratios. Since the quality of accounting ratios derived from the published financial statement would determine or indicate quality of governance in place. According to Ra'ed Masa'deh, Tayeh, Al-Jarrah and Tarhini (2015: 135) all accounting ratios are used as indicators to disclose the financial health of the company, other key ratios reveal a company's strength more than others. They are denoted in percentage or fraction or decimal format, which allows you to relate a company's ratios to its competitors (Lakshan and Wijekoon, 2013:37). However studies that relate accounting ratios with firm value is limited in the world literature especially in Nigeria. This is revealed from the literature reviewed and most of the studies on accounting ratios tend towards analysis and interpretation of financial statement and as a detector of corporate failure. According to Adegoke (2007:31) and Enekwe (2015:18) prior studies have shown that most of the studies conducted on accounting ratio analysis and firm value

dwell largely on financial and manufacturing sectors. This study tries to solve this problem by covering all sectors except the financial sector due to its peculiarity. However, accounting ratios gotten from financial statement of a firm with poor governance are likely to be ratios with flaws. Adegoke (2007:31) as cited by Enekwe (2015:18) further perceives that some firms in Nigeria with some encouraging investments and high rate of return have gone out of business. They are frustrated and out of business due to inadequate use of accounting ratio and poor corporate governance practices.

It is depressing to note that in developing countries such as Nigeria few studies have been carried out on the issue of firm value, corporate governance and Accounting ratio of the listed firms in the Nigeria Stock Exchange Market (Baba, 2013:1; Moeljadi, 2014:6). In addition, no prior panel study on this topic has been conducted in Nigeria. The study therefore differs from previous studies in Nigeria as it combined all the sectors except the financial sector in a panel study due to the peculiarity of the financial statements. Including more sectors provides more bases for argument and more grounds from which to derive inferences. This study therefore tried to add to the body of knowledge by filling the above identified gap. The present study seeks to address the preceding problems and fill this gap by examining the impact of corporate governance and accounting ratios on firm value, as well as develop a model that is suitable for value maximisation. The problem is therefore that the application of corporate governance, accounting ratios and firm value and in relation to sustainable business has not been researched for Nigerian companies.

The main problem of this study is therefore linked to the increasing trend of corporate failures around the world today, which is of major concern in terms of why corporate organizations fail despite having corporate governance in place, a situation in which Nigeria is included (Wilcox 2017:289; Lakshan and Wijekoon 2013:38). This has destabilized the economic system of countries in various ways, especially in Nigeria. The present recession in the country is perhaps engendered by poor governance, evident in the corporate and public sectors of the economy. This further leads to an upsurge of crime, including banditry; an upturn in unemployment; the collapse of capital markets; an ascending influence of corruption; and burgeoning poverty rates. Hence, the present study seeks to address the preceding problems by evaluating the sway of corporate governance and accounting ratios on firm value of listed companies in Nigeria and providing a workable model for companies.

1.3 Purpose of the Study

Due to globalization and the increasing complexity of business environment around the corporate world, this leads to greater reliance on the corporate organizations as the engine room for growth in the world as a whole. Corporate organization is a major factor to economic growth and development of any nation which in turn improves standard of living, alleviation of poverty and in the long run create good and better economic environment. The purpose of the study is to provide model that can help to foster good governance and whether operations of various companies is in compliance with code of Corporate Governance in other to reduce failure rate in the world. Good corporate governance brings about improvement in accounting ratios and increases value of firm with accounting ratio assessment (Rezaei and Jalilmehr 2012:864). Therefore, this study examines the root cause of corporate failure despite sound corporate governance by incorporating accounting ratios as a major tool that interprets financial statement, also detect whether value had been created and whether value created had been sustained over years or not.

1.4 Objective of the Study

1.4.1 Primary objective

The primary objective of the study is to develop a model that indicates the effect of corporate governance initiatives on accounting ratios and company value sustainability.

1.4.2 Secondary Objectives: This is also sub divided into theoretical and empirical objective

1.4.2.1 Theoretical Objectives

i. Appraise to what extent the selected firms comply with the 2016 Nigeria national Corporate Governance Compliance (NCGC).

ii. Analyze the linkage between voluntary compliance with the NCGC by employing a broad composite corporate governance index.

1.4.2.2 **Empirical Objectives**

i. Determine the impact of corporate governance, accounting ratios on the firm value of the selected firms
ii. Examine the dynamic interaction among corporate governance, accounting ratio and firm value of the selected firms at the Nigerian Stock Exchange Market.
iii. To study the trend analysis of the sampled firms in order to determine the performance of the sectors.

1.4.2.3 **Hypothesis of the study**

H0: The corporate governance practices and accounting ratio has no significant impact on firm value of the selected firms.

The *t* and *F*-student statistical measures are used to test the stated hypothesis.

1.5 Research Methodology

This study made use of qualitative research through various review of literature as well as quantitative research through the use of empirical studies. However, analysis of empirical objectives was purely quantitative.

1.5.1 Literature Review

To achieve the stated objectives, this study evaluates literature concentrating on a conceptual review on corporate governance, accounting ratio and firm value. Empirically, studies from Developed Countries, Developing Countries and Nigeria on corporate governance, accounting ratios and firm value were reviewed. The literature review was conducted purposely to discover gaps in the existing literature. The objective of the review was to discover gaps in the relevant literature and to establish the originality level of the study. The review further helped to discover that this topic has not been researched in Nigeria before the completion of this study. This means that there was no study that combined Corporate Governance, Accounting Ratios and firm value in a single study in Nigeria as and when this study was conducted. Tables 2.2 to 2.9 under the summary of empirical literature and page 57 under the summary of gaps from the literature reviewed complement the above justification.

1.5.2 Empirical Study

In this section, this study adopted a quantitative method of research to achieve the stated objectives. The study depends largely on ~~s~~econdary sources of data through the use of annual report and financial statement of each of the selected listed firms. Mathematical calculations are applied in the calculation of each accounting ratios variables identified from the literature and its effect was analyzed on the firm value of each selected listed firms. The firm value is considered as a proxy of Tobin's q which is computed as a product of outstanding shares and share price of the firm plus total debt divided by total asset. Also Corporate Governance variables like board size, director's remuneration, growth and ROA etc. identified from literature and disclosed in the financial statement were analyzed on the firm value of each of the selected firms. This is with the aim of examining the dynamic interaction among accounting ratio, corporate governance and firm value, in other word, the study determined both the short run and long run effect of corporate governance, accounting ratio on the firm value of each of the selected firms. The study makes use of estimation techniques such as Panel Data Regression Technique, Panel Vector Auto-Regressive Technique and some robustness check were also employed. The results were interpreted in tabular forms, graphs, and charts etc.

1.6 Significance of the Study

Corporate governance, sustainability of firm value, accountability and financial transparency in firms constitutes a major concern and problem in today's business and has presented itself as one of the major and dynamic aspect of accounting and it is attracting attentions in daily increasing manner. Many studies have proved that structure of corporate governance is directly related with a company's success or failure and it plays an important role in the future status of companies (Hassas Yeanch, 2005:866; Farzin Rezae, 2002:865). Countries have relied upon the private sector as an engine room for growth and development due to growth in the complexity of the business environment, globalization and changes in technology. This situation can be attributed to the belief that the corporate sector of any nation contributes immensely to economic growth and development, which in turn leads to a reduction in poverty levels of citizens and improves per capita income and the standard of living of people in such a country. However, corporate governance is also seen as one of the key driving elements that enhances economic growth and investor confidence in the country (OECD 2004). This study contributes to the body of knowledge

on corporate governance practices, accounting ratios and whether the value created by firms is sustained over the years. This is achieved by examining the corporate governance structure in Nigeria and how firms' boards of directors can reflect transparency and accountability through reporting on their firm value in the published financial statements to stakeholders, especially the shareholders.

Existing literatures dwell on the relationship between board size, board structure, board characteristics, board committees, corporate governance and firm performance amongst are: (Daily and Dalton, 1999:694; Dalton, Johnson, Ellstrand, and Daily, 1998:209; Zahra and peace, 1989:294) and corporate reporting and firm performance (Balabams, Philips and lyall, 1998:26; Mcguire, Sundgren and Schneeweis, 1998:856; Liang and wier, 1999:457 Orlizky, Schwidt and Ryne, 2003:405; Zairi and Peter 2002:175). The relationship between corporate governance, corporate reporting, board structure and firm performance has also been carried out by Heenetigala (2001:1). However, this study dwells on the relationship among corporate governance, accounting ratio and firm value. This study therefore contributes to knowledge as shown below because it has not been investigated in a single study in previous research. In addition to this, Currently, this is the first study that considers the effect of good corporate governance on the value of firms which combines accounting ratios in Nigeria. The studies in the past mainly dwell on firm performance, corporate social responsibility and firm performance and corporate governance and firm performance, specifically, there is no study in Nigeria dwelling on the relationship among corporate governance, accounting ratio and firm value in the Nigeria stock exchange market. Nigeria is in the West Africa. Its economy has been strongly affected by recession caused by corruption, political instability, poor performance of stock market, corporate failure caused by poor governance and insecurity apart from other micro economic variables that are common to other countries within the emerging market. Therefore, there is need to understand how corporate governance practices affect firm value in such markets. This study would not only benefit the corporate sector in Nigeria, but is also of a great significance to stock markets as a whole as well as for other African countries that are culturally and politically similar to Nigeria. It would also benefit decision-makers, investors, regulators of the stock market and researchers, as well as assist the policy-makers to set new and improved standards for best practices. It is a useful tool in the hand of researchers (especially the model formulated) as a new framework for future research tool to assess corporate governance and firm value using Accounting ratios as an interpreting tool. The

findings of this study also provide a significant contribution to understanding the issues and the current state of corporate governance practices in the Nigeria.

1.7 Project Plan or Chapter Layout

The plan of this study comprises of six chapters as follows.

Chapter 1: This chapter provides the background to the study which describes the main motivation behind the study. It also shows the statement of the research problem; the objectives of the study, both theoretical and empirical; the statement of hypothesis; significance of the study; and scope of the study.

Chapter 2 Chapter Two deals with the theoretical and empirical review aspects of the literatures. Various literatures on corporate governance, accounting ratios and firm value was reviewed. The study classified past works as empirical reviews from developed countries, empirical review from developing countries and empirical reviews from Nigeria.

Chapter 3 This chapter reviews conceptual literature where various concepts were defined in relation to this study, and not merely the dictionary meaning.

Chapter 4: Chapter Four appraised the extent to which selected listed firms comply with the 2016 Nigerian National Code of Corporate Governance. It also analyzed the linkage between voluntary compliance with the NCGC by employing a broad composite corporate governance index.

Chapter 5: This chapter shows the research methods applied for the empirical research in interpreting the objectives stated, the data collection, and the sources of data and data analysis technique.

Chapter 6: In this chapter, the data presentation and interpretation of result as well as the analysis of data was done. Findings from the result are shown along policy implications.

Chapter 7: Dealt with summary, conclusions and recommendations: This chapter concludes the study and makes recommendations for policy-making.

1.8 Chapter summary

Chapter one covered the introduction and the scope of the study on corporate governance, accounting ratios and the firm value of Nigerian listed firms. The chapter highlighted the importance of this topic to the growth and development of the economy of any nation and introduced the notion that a lack of good corporate governance is directly correlated with the

failure of many companies. Most especially, the collapses have resulted in a growth of attention to corporate governance in the world. Moreover, it calls for management and boards of directors of companies to be more careful in their operations and to be more transparent, accountable, and value-driven. The study also call for more active participation in establishing more principles and models on corporate governance that can solve the lingering problem. It was also revealed that corporate governance has moved from agency conflict to one where shareholders and other stakeholders demanding accountability, sustainability of firm value, transparency, trust and reliance on their reports of stewardship for their investments and decisions.

Accounting ratios, as a tool in the hands of managers, can be used as a tool to perform surgical operation on financial statement to detect how healthy a company is and to know whether or not the company value has increased or not. It was discovered and stated as the problem that the trend of corporate failures has raised concerns about why corporate organizations fail, despite implementing and practicing of corporate governance across the world. The present recession that Nigeria is experiencing cannot be completely separated from poor corporate governance and other factors because corporate body drives greater part of any nation's economy. Poor corporate governance has a direct link to poor accounting ratios and the poor performance of business. As a result of this both theoretical and empirical objectives were structured in a way that helped the researcher to achieve and proffer solution to the stated problem, as well as to contribute to the body of knowledge.

CHAPTER 2:REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

2.1 Introduction

This chapter focuses on the theoretical and empirical literature on the link amongst corporate governance, accounting ratios and firm value of the selected listed firms on the Nigeria stock exchange. Section 2.1 reviews the theories and models on corporate governance; section 2.2 reviews theories on accounting ratios and firm value; 2.3 reviews related theories on disclosure; section 2.4 reviews theories on firm value; and lastly, section 2.5 also reviews related literatures.

2.2 Theories and Models of Corporate Governance, Accounting Ratios and Firm Value

2.2.1 Theories on Corporate Governance

This study on corporate governance, accounting ratios and firm value is backed up by various theories that explain the basis and foundation behind the management of companies generally. These theories mainly include the Agency, Stakeholders, Stewardship, and Transaction cost, Signaling theory, Ethics theories and Resource-dependency theories. Each of the theories have been examined by previous studies by various authors (Abdullah and Valentine, 2009:88; Alchian and Demsetz, 1972:777; Jensen and Meckling, 1976:305; Emile, Ragab and Kyaws, 2014:1866; Hua and Zin 2007:31; Mintz 2004:5; Health and Norman, 2004:247; Sanda, Mikailu and Garba, 2005:7 and Amori and Oyeleye, 2017:280). However, there is need to re-examine them one by one in line with this study.

In addition to the above theories, this study also aligns with four models of corporate governance control that were identified by the prior studies as posited by Hawley and Williams (1996) and also cited by Duhnfort, Klein and Lampenius (2008:424) namely (i) The Simple Finance Model; (ii) The Stewardship Model; (iii) The Stakeholder Model; and (iv) The Political Model.

The Stewardship Model sees and assumes that managers are trustworthy. For the stakeholder model, Starik (1994:90) stated that stakeholders are those who are or might be affected by or are major company's decision-makers. In the Political Model, power lies with government as a major stakeholder that allocates power in favor of their various constituencies. The Simple Finance Model is a subset of The Political Model and it is associated with Agency theory, which is the main theory under corporate governance. Corporate governance, as defined by Shleifer and Vishny

(1997:737) is the ways in which the shareholders ensure that their investments are well managed in order to assure themselves of getting a return on their investments. The research scope of this study is anchored on the Simple Finance Model and combinations of theories as suggested by (Abdullah and Valentine, 2009:88).The fact still remains that Agency theory is still the main theory of all. This work reviews these theories one by one in relation to the current study.

2.2.1.1 **Agency Theory**

The Agency theory discusses the underlying contracting relationship between the principal and the agent, this brings the question of how best to determine the most efficient relationship that enhances firm value for the company. Corporate governance is the way in which the board of directors, headed by the Chief Executive Officer, manage companies on behalf of the shareholders. The CEO is the agent of the company and he is expected to represent the interest of the shareholders. Anything less than this or outside this brings about a conflict of interest between the owner and the manager because shareholders want returns on their investment and their value to be enhanced while managers would want to be adequately remunerated, investing in things that would benefit the company in order to protect their work or strive to maximize their own interests. This theory therefore emphasizes on agency conflicts which occur due to differences in interests between owners and managers (Jensen and Meckling, 1976:305). Abdullah and Valentine (2009:88) referred to this theory as the mother and most fundamental of all corporate governance theories. This study as well concurs and consider this theory as the mother of all theories under corporate governance.

In relation to this present study, the agency problem is seen as a major challenge which must be handled with care because if not well managed, it leads to corporate failure and if it is well managed it enhances the value of the firm. Therefore, for this theory to enhance firm value companies must strike a balance that is cost-effective between shareholders and management in order to increase performance and enhance the firm value of the company. Such can only be achieved if the agent and the owner work towards the same goals and objectives, which is the company's overall goal and objective, and consider personal goals to be secondary.

2.2.1.2 **Agency Theory and Corporate Governance**

Corporate governance is the way and manner in which companies are run and controlled, while Agency Theory is the theory that studies the problems that usually arise between owners of those

companies and the managers. The agency problem has been referred to as the most difficult problem company face for ages. The essence of corporate governance is for the smooth running of the business. Managers raise funds from investors to put them into productive use, while investors or shareholders need managers' skills and expertise for the survival of the business and to generate returns on investment. According to Berle and Means (1932:1); Alchian and Demsetz (1972:777) and further developed by Jensen and Meckling (1976:307) as cited by Abdullah and Valentine (2009:88) states that the essence of the Agency Theory is for management and finance which can be achieved through ownership and control.

2.2.1.3 **Stakeholder Theory**

This theory considers other stakeholders other than shareholders and managers alone. It states that other groups or individuals who are affected by the company's decisions or reports are also important. It differs from Agency Theory because managers are only to work for the interest of shareholders. This theory therefore emphasizes that managers should not only work for the interest of shareholders alone, but also for the interest of all other stakeholders (Abdullah and Valentine, 2009:91). Concept of Corporate Social Responsibility is closely related to this theory. This means that companies should be responsible to the communities and society in which they are situated in order to bring about sustainable development. Crowther (1996:4) states that the performance evaluation of firms is done through the analysis of various stakeholders. The study therefore sees this theory as part of the theories to be considered because stakeholders in an organization are very important as without them functionally involved the company's continuity or going-concern may be threatened, and which may lead to failure. Shareholders are important, but without the involvement of other stakeholders, their investments and company are in trouble. Therefore, managers and the shareholders should always look for ways to carry along other stakeholders for the smooth running of the business. If this is achieved, firm value would definitely be enhanced. Figure 2.1 below reveals various groups of stakeholders, which better explains the theory.

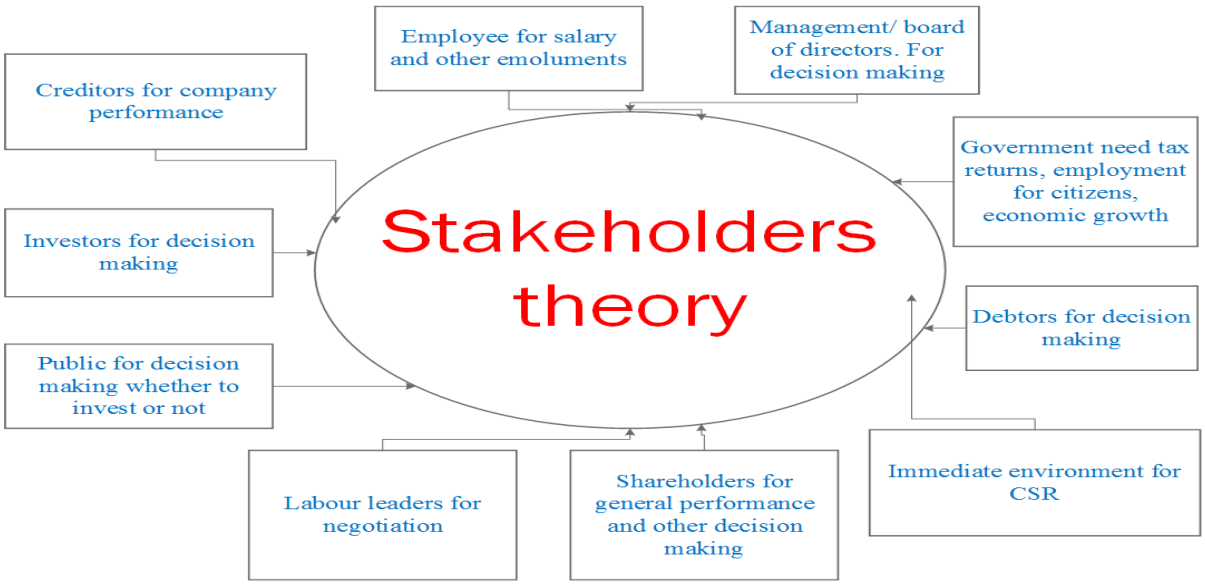


Figure 2.1: Stakeholders theory

Sources: Own research, 2019

Figure 2.1 above depicts various stakeholders with their firm and their information need. These stakeholders rely on the information from the financial statements to take any investment decision. Stakeholder theory is directly related to the corporate social responsibility of any organization as well as the environment in which the firm is situated. It is the opposite of Agency theory which is strictly between the shareholders and the agent. Some countries have mandated disclosure of law relating to few stakeholders such as corporate social responsibility disclosure, payment of tax to the government. All listed companies must comply with the disclosure and tax payment.

2.2.1.4 **Social Contract Theory**

Social Contract theory sees companies as having a social contract with their immediate society. The company should be responsible to its environment. Companies therefore have a corporate social responsibility with regard to their environment (Gray, Owen and Maunders, 1988:6 Gray, Owen & Adams, 1996:1). The proponent of this theory sees social responsibility as a contractual obligation that the firm owes to society (Donaldson, 1983:153; Donaldson and Dunfee, 1994:252). This study therefore sees this theory as a tool that shareholders and other stakeholders can use to make management work very hard because if the contractual obligation is not kept, it may lead to a breach of contract and other litigation from stakeholders, which can cost the

company much and have an adverse effect on company value. Litigations from breach of contract can even lead to company failure if not properly handled.

2.2.1.5 **Transaction Cost Theory (TCT)**

TCT tries to bring service providers (investor, managers and other stakeholders like customers) together. TCT is the cost of monitoring, agency cost, negotiating, other bounding cost, contingency liabilities and enforcing exchanges between parties to the transaction, which ultimately affects firm performance (Bowen et al., 1995:255). In relating this theory to this study, all transaction costs must be carefully monitored and controlled in order not to harm the performance of the business. Cost reduction, where needed, must be introduced and controlled where necessary. Care must be taken in handling contingent liability in order not to lead to outright failure of the business. Moreover, if all TCT are well managed, it improves firm value. Coase (1937:386) introduced this theory and related it to the existence of firms. Williamson (1985:135) elaborated on the theory by saying that the theory is dependent on outside stakeholders, who are referred to as partners. Abdullah and Valentine (2009:92) stated that the underlying assumption of Transaction Cost Theory is to allocate resources after all costs have been taken care of, no matter how large the firm is. In this study, transaction cost of a company is related to the cost of capital and WACC that, if well managed, it enhances firm value by increasing returns on equity and returns on the assets of the company.

2.2.1.6 **Stewardship Theory**

This theory views managers and other company management as trustworthy stewards. As a steward, it is expected of the person to protect and maximize shareholder wealth through good governance. In this study, this theory sees the steward as working for the shareholders, protecting and making profits for them (Abdullah and Valentine, 2009:90). This theory does not emphasis the role of the individual as the Agency Theory proposed. Rather, the role of top management is seen as a collective responsibility (Donaldson and Davis, 1991:1). Management is also seen as an honest and trustworthy steward that integrates their goals in support of the company's goals (goal congruence). Stewardship Theory proposes that stewards should be satisfied and motivated when they need to be, especially when the company attains success. The Stewardship Theory presents a contrasting view to the Agency Theory. It takes its source from the parable of a talent in the Bible.

Stewardship Theory was also linked to psychology and sociology and is defined by Davis, Schoolman and Donaldson (1997:20).

This theory could be related to the current study by looking at the relationship between trustworthy and committed managers and firm value. Trustworthy and committed boards and other management members determine the value of the firm (Aduda, Chogii and Magutu, 2013:107). The relationship with the study asserts that agency costs will be very low if managers are trustworthy and committed to their works (Donaldson 1990:369; Donaldson and Preston, 1995:6, as cited in Aduda, et al., 2013:107). The level of trustworthiness of managers of companies determines the quality of their individual companies, which can improve firm value in the long-run. Stewarship theory believes that managers are trustworthy, honest and faithful stewards who can be entrusted with companies' resources. Managers are expected to work with utmost good faith to maximize corporate profit and to maximize share returns by incurring very low costs of capital. This theory therefore argues that the performance of firms is linked to how trustworthy and honest the majority of the management structure is.

2.2.1.7 **Ethics Theory**

Ethics Theory is very important because the lack of an ethical culture in an organization has led to the collapse of so many promising companies. Good companies should be enveloped with good ethical culture and character such that right and wrong issues are addressed in the utmost good faith. In fact, it is believed that the combination of good ethical culture and that of good corporate governance helps companies to grow faster than when such companies lacks an ethical culture and the company is likely not to have robust accounting ratios. Heenetigala, (2011:1) states that one of the reasons why companies should be ethically cultured is the need for investor's confidence in order to attract and retain both foreign and local investors. Several ethical theories and corporate governance that are closely related are classified as follows: Business Ethics Theory, Discourse Ethics Theory and Feminist Ethics Theory (Abdullah and Valentine, 2009:93). *Business ethics* is building and ethical culture in the day to day activities of the company where workers are expected to be able to differentiate rights from wrongs. This ethics suggests that all dealings in an organization should be ethically and morally controlled. In understanding the 'rights and wrongs' in business ethics, Crane and Matten (2007:1) injected morality, which is concerned with the norms, values and beliefs that would help workers to discern right and wrong for an individual or social community. *Feminist Ethics Theory* on the other hand emphasizes on love for one another

and for an organization to be socially concerned and work together in love, not only to be profit centered. *Discourse Ethics Theory* is concerned with how companies peacefully settle conflicts within the organization (Habermas, 1996:125). Meisenbach (2006:39) opines that settlements of dispute and conflicts in a lovely and rational manner would be beneficial to companies because it promotes peace and cultivate openness. The study therefore concludes that if company operates in a lovely environment, ethically and morally cultured and settle disputes in love, this would boost company value in the long run.

2.2.1.8 **Resource Dependency Theory**

Resource Dependency Theory sees the company's manager as the key body that provides an access all resources company need for better corporate governance. Directors are seen to be the heartbeat of any organization because they have first-hand information of the company and they know what the company needs at any given time. The theory also regards the directors as resource persons who have connection and possess the knowledge, skills and techniques needed for the company to grow. Daily, Dalton, and Cannella, (2003:371) supported other writers that provision of resources enhances a firm's performance and the survival of the company. Lawrence and Lorsch (1967:1), as scholars of the theory, stated that for a company to be successful and free from external threat, internal structures must match environmental demands. Hillman, Canella and Paetzold (2000:238) listed different types of resources that directors bring to the firm, namely access to key constituents, information, skills, policy- makers, suppliers, buyers, public, social groups, as well as legitimacy. Therefore, this work advocates that if directors articulate all resources within their disposal firm value would definitely be enhanced.

2.2.1.9 **Political Theory**

Political Theory is looked at from two sides: the political environment in which an organization is situated is important to their survival and the going concern of the company. Companies are more secured and grow very well in a good and peaceful political environment. Pound (1993:1003) stated that companies grow, secured public voices are heard in a good political environment. It is also a great resource to the organization if the board of directors has political power. The political theory of corporate governance influences on governance developments (Abdullah and Valentine, 2009:93). The influence and collection of having political power may bring good infrastructure into the organization and its environment, which can be beneficial to

the organization and the environment. Hence, having political power may direct and influence corporate governance within the organization. Some years back, Hawley and Williams' (1996:1) study revealed that there have been a strong political influences on firms because of the entrance of politics into the governance structure or firms' mechanism.

2.2.2 Theories on Accounting Ratios and Firm Value

Accounting Ratios is one of the major variables in this study, hence the need to study the theories underpinning accounting ratios in relation to firm value. The theories are therefore dealt with one by one:

2.2.2.1 **Pecking Order Theory**

The theory looked at information asymmetry and raising of finance for investment decisions as a major problem facing managers, shareholders and all other stakeholders. The theory also supports Modigliani and Muller's theory that there is no optimal capital structure. Rather, finance is raised according to a preferred order. It states that management will always consider the lowest-cost financing alternatives before debt. Therefore, it should first consider retained earnings and thereafter external financing like debt, convertible debt, and preference share before equity (Correia, 2019:1413). This is because new issues of shares may have negative meaning for the public. However, debt should also be regulated in order not to affect the company negatively. If managers and all other stakeholders do not have first-hand information and right sources of finance, good governance and good accounting ratios may be impaired. This may have a negative effect on decision-making. The magnitude of information at the disposal of managers determines the quality of governance and information he discharged to other line managers. Myers and Majluf (1984:187) propose that the theory is based on asymmetric information and that managers have better information more than other stakeholders. This information should therefore be used for the company's future prospect and in favor of existing shareholders so that company value could be enhanced. Company managers should not turn this to their personal advantage lest it becomes a problem to the organization and it adversely affected the company.

2.2.2.2 **Trade off Theory**

The yearly rollover of profitability improves the value of the firm greatly and it is directly correlated with the outcome of accounting ratios at the end of each financial year. Sometimes

companies prefer debt than equity because of tax shield, as the higher the debt, the higher the tax relief and the higher the associated risk (Myers, 2001:81). In support, of Modigliani and Miller (1963:433) states that it is better to run a business with debt than equity because of the interest element to be deducted from company tax payment. However, care must be taken by managers when running business with high levels of debt because of the possibility of bankruptcy as higher debt is associated with higher risk. Companies must therefore know their capability in terms of levels of debt. This study therefore considers the trade-off point to be the point at which the company's debt capacity cannot go beyond, otherwise the company starts experiencing low profitability. According to Myers (2001:81), the Trade-off theory postulates that firms prefer high levels of debt because of tax shield associated with it for maximum tax gain and for enhancing profitability. However, if the firm operates beyond its debt capability, such a company is liable for debt, especially if the debt is not carefully monitored. Kim (1978:45) opposed Modigliani and Miller, stating that high debt is associated with corporate failure. Pourali and Arasteh (2013:944) corroborated him by stating that high levels of debt are associated with corporate failure. Therefore, firms prefer internal reserves in terms of equity and other reserves to debt. Hence, the determination of optimum capital structure where WACC is minimal with the highest market value and firm value of the firm is very important in support of traditional theory, as opposed to Modigliani and Muller's theory. It then means that management of the company would have to determine WACC at the point where both equity holder and debt holder agree. This means that firms would maintain a lower than expected debt-to-equity ratio at this point, which indicates trade-off theory in order to take advantage of all the investment opportunities available without having to issue new equity.

2.2.2.3 **Positive Accounting Theory**

This theory allows companies to choose and use any accounting policies and practices that are available to minimize cost and maximize firm value. Different companies do not necessarily follow the same policies and practices. Managers are therefore tend towards value maximization which is Positive Accounting Theory (Scott, 1997:23). For the purpose of this study, this theory provides a way of summarizing the valuation of firms by saying that if a company is prudent enough, value is already created that is lower Default risk leads to lower cost of debt, which also leads to lower WACC and later leads to higher firm value.

2.2.2.4 **Signaling Theory**

Accounting ratios send signals to investors. This theory sees financial statements as a medium of communication between the management and other stakeholders. It forms one of the theoretical frameworks of this study. Signaling Theory sees Accounting Ratios obtained from financial statements published at the end of each financial year as a result of work done by management as a signal to all other stakeholders. Accounting ratios give either positive or negative signals to other stakeholders, especially investors. Since investors get their main information through annual reports, the majority of this information is interpreted through accounting ratios. Investor confidence is obtained through information which must be timely, relevant, accurate, sufficient and complete. This is germane to every investor in order for an informed decision to be taken. Accounting ratios are the medium through which the quality of work done by the board of directors can either signal good success or failure to the shareholders, other stakeholders and public at large. Accounting ratios can help to determine that information at the right time for better decision-making (Akerlof, 1970:488). Financial information is aimed at reducing information asymmetry between the company and external parties (Wolf, Awschalom, Buhrman, Daughton, Von Molnar, Roukes, Chtchelkanova, and Treger, 2001:1488). This theory therefore explains a company's ways of publishing information, both mandatory and voluntary reports, to the public and capital markets for the better understanding of all stakeholders, even when they are not mandated to do so by any regulatory requirement. Companies' Management reports show information aimed at maintaining investor interest in the company, or for internal purposes.

2.2.2.5 **Agency cost theory**

The Agency Cost Theory came into existence as a result of the principal-agent relationship. Agents are employed by their principal and there is always conflicts of interest between them. This theory is directly related to the DCF model. The study looked at this theory from three aspects, namely the shareholders, management and agency cost. Many costs are associated with this relationship, like Audit fees and monitoring activities that are set up by shareholders for them to achieve their objectives, which is the value-maximization objective. Agency cost, bounding cost and other emoluments are costs of actualizing this objective as an agreement between management and the shareholders for the smooth running of the company. There is always a disagreement between shareholders and managers over a firm's operating decisions. While managers want increment in

all these costs, shareholders want to maintain minimum cost. Managers may prefer a firm to continue operating whilst shareholders prefer liquidation or mergers and acquisitions of the firm due to low performance. Another area is that managers may prefer ploughing back profit while shareholders may want dividends because of the birds in hand concept in the form of returns on their investments (Stulz, 1990:10). This study therefore sees that the higher the cost incurred by the agent (management) the lower the profitability of the firm and yearly reductions or fall in firm's profitability lead to reductions or falls in the company's value and the shareholder's value. On the other hand, when company makes high profits and the profit rolls over yearly, it enhances firm value. This is directly related to good governance by management (agent) through prudent spending. Good corporate governance is directly related to quality of work done by firm management, which in-turn improves firm value. However, despite all these, managements might still be tempted to pursue personal incentives instead of maximizing shareholder value (Myers, 2001:81). Fama and Miller (1972:1) initiated this research area which was built upon by Jensen and Meckling (1976:307). They identified two types of conflicts: those between shareholders and managers, and those between debt holders and equity holders. Harris and Raviv (1990:337) and Stulz (1990:7) also researched on manager- shareholder conflicts.

Jensen and Meckling (1976:310) suggested ways in which these conflicts could be mitigated. They suggested managers could be allowed to own shares of the company. ICAN also buttressed this, but with a limit of not more than 20%. The second type of conflict is between debt holders and equity holders as identified by Jensen and Meckling (1976:305). When company debt increases, equity holders may not want to invest or may invest sub-optimally. This is because during liquidation, equity holders suffer the losses while the debt holders rank first to be redeemed in case of liquidation or the company being declared bankrupt. However, if the bankruptcy proceedings are insufficient to pay the debt holders they shall be ranked and equity holders enjoy limited liability. This means that equity holders would not be sued because the company is a limited liability company. Hence, Denis and Milov (2002:1) suggested that a firm's decision to borrow more debt should not exclude existing debt holders of the company. Figure 2.2 below better explains Agency Cost Theory, which may result in increases in agency costs between the principals of firms and their agents.

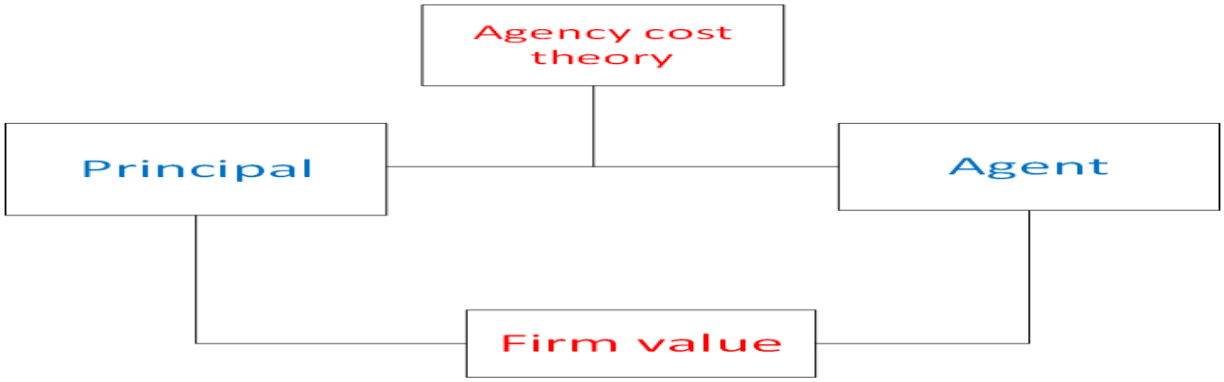


Figure 2.2: Agency Cost Relationship

Source: Own research' 2019

From Figure 2.2 above, there is an agency cost between the principal and the manager, who is the agent. Agency Cost Theory has a direct link with corporate governance because the principal who is the shareholder, will always want to maximize his wealth while the agent will always want to invest and get higher remuneration. This conflict should be regulated by the independent non-executive directors of the various committees as specified by the corporate governance code. If the cost is well regulated and unnecessary costs avoided, firm value is definitely increased by reducing cost of capital.

2.2.3 Theory of Firm Value

In relation to firm value there are two main theories that connect corporate governance and accounting ratios, namely Shareholder theory and Stakeholders' theory. The first defines the firm's primary objective as value maximization for shareholders, whereas the second also includes other objectives. It is believed that all other theories revolve around these two theories (Dolenc, Stubelj and laporsek, 2012:51).

2.2.3.1 **Shareholders' theory of firm value**

Value maximization for shareholders is generally seen and accepted as the primary purpose and objective of every corporate establishment (Rapport, 1999:1). This refers to the maximization of a firm's equity. It is generally believed that if a firm follows a value-maximization objective, other objectives automatically happen. It is defined as the present value of expected future cash flows that shareholders can expect from their investment. In this regard, the amount of expected inflow, profit and other benefit determines value maximization in the long-run. One should keep in mind

that value-maximization is different from profit-maximization as profit is related to short term and can only to a certain extent explain the market value of the equity (Stubelj, 2010:37).

Shareholders are also interested in profit which is a short term objective of every profit oriented organization and this is accrued from the business. In this case, shareholders' interest would be achieved by yearly profit accruing from the business. Profit is usually related to short term because business may fail to generate profit in the long run. However, value-maximization can only be attained, if the firm continues to provide a yearly turnover of profit in the long-run and can among other things improve firm value. Radosavljevic, Volarevic, Jovanovic, Milovanovic, Pejnovic, Arsenijevic, Hsu and Lukic (2012:129) therefore opined that firms must employ all the available resources to maximize value putting in mind the interest of all the stakeholders.

2.2.3.2 **Stakeholders' Theory of firm value**

Here, the primary objective is more broadly defined. It defines firm value from the perspective of all its stakeholders. However, the interest of other stakeholders should not be jeopardized in the process of maximization of firm value. While firms follow the principle of value maximization, care must be taken so as not to be detrimental to the interest of other stakeholders that are also affected by the decisions of the organization. Referring to the above, Rappaport (1986:1) supports the shareholder value, whereas Crowther (1996:4) supports wider stakeholder. This study therefore resolved to employ combinations of theories that consider wider range of stakeholders. This is because, it has been discovered that whichever theory is adopted, it comes back to maximizing the shareholder value, all things being equal, and if the principle of objectivity is strictly followed.

2.3 Theoretical Framework

Having reviewed all the related theories, there is the need to specify the framework within which this study is based. Figure 2.3 below therefore explains the theoretical basis upon which this study stands.

Figure 2.3: Theoretical framework of corporate governance, accounting ratios and Firm value

Source: Own research, 2018

2.3.1 Interpretation of the theoretical frame work

The theories reviewed above focus on how corporate governance and accounting ratios affects firm value. This study supports a multi-theoretical framework (Abdllah and Valentine, 2009:88; Albassam, 2014:182), although Agency Theory is the main theory around which other theories revolve. It focuses on how conflicting interests between principals and agents could be greatly reduced and maximize shareholders' value, taking other stakeholders into consideration. Duhnfort, Klein and Lampenius (2008:424) revealed that every theory used often results in a principal-agent conflict as a result of Agency Cost Theory, which is the main rigor and brain behind corporate governance. Other theories which are also considered are Stewardship Theory, Signaling Theory, Stakeholder Theory, Legitimacy Theory and Litigation Cost Theory. Agency Theory, Stewardship Theory and Stakeholder Theory are the theories for corporate governance. How each one of the theories led to firm value has been dealt with earlier. Signaling Theory is for accounting ratios, while Agency Cost Theory is a link between corporate governance and firm value and accounting ratios and firm value. The other two, Legitimacy Theory and Litigation Cost Theory are for both voluntary and compulsory disclosure and that of level of compliance with the code. Therefore, Agency Theory, explains separation of owners from control with the aid of accounting ratios that

will maximize the value of the firms. Most studies on corporate governance combined those theories, including this present work, because one theory leads to the other which supports the view of Abdullah and Valentine (2009:88) that one theory is not enough to explain good governance practices but more. Stewardship Theory views managers as faithful, trustworthy agents of the organization. Managers' transparency and accountability are likely to maximize shareholder wealth and promote stewardship accounting through quality reporting. On the other hand, Stakeholder Theory holds that the firm is responsible to all the stakeholders. This means that companies, through their managers, report to a broader stakeholder group beyond only shareholders. However, Signaling Theory was also used in this work for the voluntary disclosure of accounting information and compliance. This information, like accounting ratios can be used as a signal to other stakeholders or to attract investors. Agency Cost Theory was used in this study to represent management's running costs which is expected to be prudently expended or considered at the barest minimum level where a company is not negatively affected. It is expected that when the cost of capital is well managed, firm value would automatically increase over the years. Stakeholder Theory suggests that other stakeholders are also important and should be considered when decisions are to be taken. This can be done without affecting the market value and profitability of the organization and in the long-run shareholder value-maximization objectives would be achieved. Lastly Legitimacy Theory and Litigation Cost Theory have a direct link with disclosure and the level of compliance as supported by Signaling Theory.

2.3.2 Conceptual Framework

The study links the theoretical basis with the various variables that was employed in this research study. Figure 2.4 explains the various concepts used and how these were jointly used to achieve the study objectives.

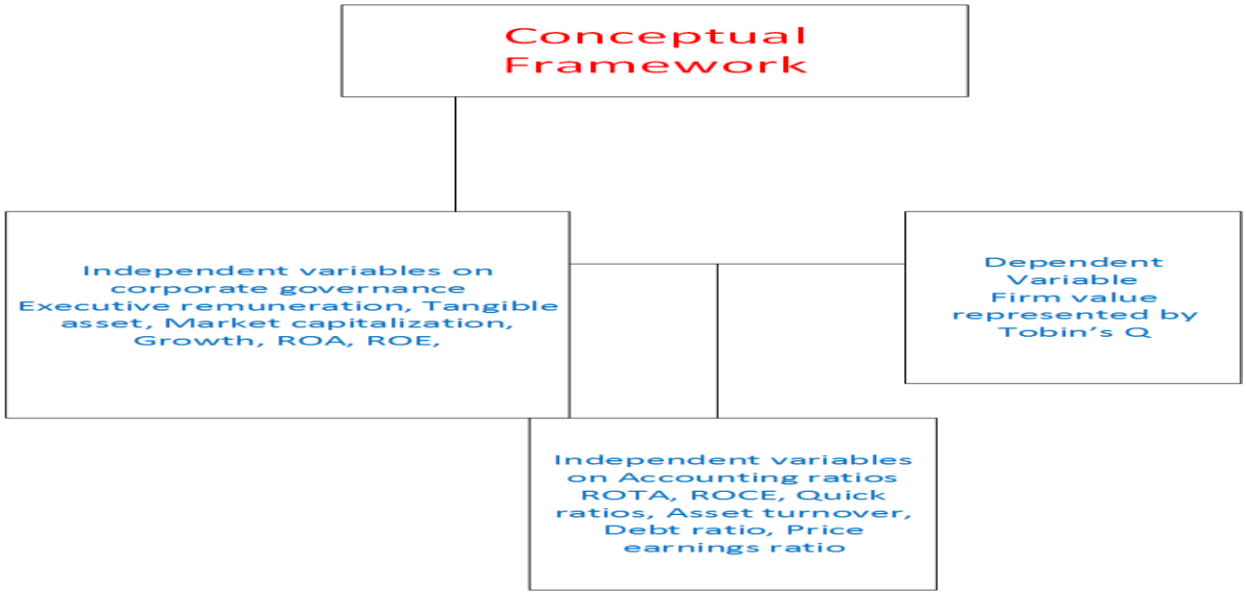


Figure 2.4: Conceptual Framework for Corporate Governance, Accounting Ratios and Firm Value

Source: Own research, 2019

2.3.3 Interpretation of the conceptual frame work

Figure 2.4 above illustrates the link between the theoretical framework and the operationalization of the corporate governance, accounting ratios and firm value. This is achieved by looking at corporate governance variables and firm value, as well as accounting ratios and firm value as investigated in this study. Evidence from empirical research suggests that several variables, both Internal and external, influence the relationship between corporate governance and firm value and accounting ratios and firm value. The internal corporate governance variables include ownership structure, board size, board composition, Managerial group and executive compensation, market capitalization and board committees, while external corporate governance is regulatory framework like company law and the listing rules, like SEC. On the other hand, the variables identified with accounting ratios and firm value is classified into profitability ratios, asset utilization ratios, financial ratios and investment ratios.

It has been proven that good corporate governance leads to better accounting ratios, which can, among other factors, result in higher firm value (Karaca and Savsar, 2012:56, Bello, 2013:1, Asiri and Hameed, 2014:1). Some of the variables identified in the corporate governance literature to measure firm value are Tobin's Q, Return on Assets (ROA), Return on Equity (ROE); Discount

Factor (DCF) Model; weighted average cost of capital (WACC) and the capital asset pricing model (CAPM). The most commonly used amongst them is Tobin's Q, which this work used because it is futuristic. From the impact of corporate governance and firm value, the conceptual framework for this work comprises of internal corporate governance variables such as board size, executive compensation, and growth of the firm and market capitalization are considered important factors affecting firm value (Abduur rouf, 2011:1; Alalade, Onadeko, and Okezie, 2014:1). Firm value variables used in this study are a market-based measure of Tobin's Q. This is because it is futuristic, unlike accounting measures that are based on past records and performance. However, the study incorporated accounting ratios and firm value because sometime one needs past performance to project the future. ROA is part of the ratios used as part of the explanatory variables to measure both present and the past performance.

The variables, considered important in affecting firm value in the conceptual framework, comprise of executive compensation, market capitalization, board size and firm growth which are supported by Agency Theory, Stewardship Theory, Stakeholder Theory, Agency Cost Theory, Positive Accounting Theory and Signaling Theory. The variables identified in the literature to represent firm value are Tobin's Q, ROA, EPS and ROE. But Tobin's q is mostly used and is therefore considered in this study.

Firm value in this study is measured by Tobin's Q and is calculated using the ratio of market capitalization to total asset, following the work of Garba and Abubakar (2014:257). Love (2010:42) stated that effective governance improve firm's output and better governed firms attracted by investors. The scope of this study is limited to only internal governance and firm value using listed firms in Nigeria and is not extended to external corporate governance mechanisms.

2.4 Conclusion

These theories are interrelated and the mother of all is the Agency Theory, which emphasizes on the conflict between the shareholders and the managers. Stakeholders Theory is an extension of Agency Theory which depicts that managers should not only relate to shareholders or owners of the business alone, but also all other stakeholders. Some other schools of thought saw the relationship between firms and their environment as a social contract between the business and the local environment (Donaldson and Dunfee, 1994:252), while Transaction Cost Theory posits that the cost of negotiating, monitoring, and enforcing hinders the measure of efficiency of the firm

(Bowen et al, 1995:255). Stewardship Theory in this study advocates that the level of trustworthiness determines firm value, while Ethic Theory states that businesses should operate within a good ethical environment where the right or wrong issues are addressed with fairness and almost good faith. This helps in taking right and good decision that enhance good accounting ratios and firm value. The Resource Dependency Theory sees directors or managers as resources persons that use his managerial experience to get things done in order to achieve the company's objective. Managers contribute information, skills, suppliers, buyers, decision makers, etc. that reduces future uncertainties for the firm. Lastly on corporate governance theory, the study considered political theory as having political power that may direct corporate governance within the organization because it is believed that stakeholders and firms are more secured in a good political environment. For the purpose of this study, the following theories are grouped under accounting ratios and they are summarized in this order: Pecking Order Theory emphasizes on information asymmetry between the owner of the business and the manager. It also emphasizes that finances of the companies are raised according to a preferred ranking. It stated that managers should first consider retained earnings and thereafter external financing like debt, convertible debt, and preference share before equity. Trade-off theory concluded that in spites of tax shields, due to paucity, failure or bankruptcy, shareholders or firms prefer internal reserves to external loans for business continuity or going concern. Positive Accounting Theory postulates that firms should be free to choose best accounting procedures and policies that are suitable for them to minimize costs and maximize firm value. Signaling Theory sees financial statements as a medium of communication between the management and other stakeholders. It emphasizes that accounting ratios are a signal to decision-makers and other stakeholders, while Agency Cost Theory states that effective corporate governance is achieved through effective management, the purpose of which is to minimize all costs for value enhancement. The higher the agency cost, the lower the firm profitability and vice versa.

2.5 Theories on compliance/disclosure

Theories on compliance and disclosure under this study are the Legitimacy Theory and Litigation Cost Theory. These theories are also important because part of this study tends towards the level of compliance of listed firms on the Nigerian stock exchange with the 2016 Corporate Governance Code. These theories on level of compliance and disclosure are elucidated below:

2.5.1 Legitimacy Theory

This theory emphasizes and sees companies disclosing all lawful and legitimate information and for them to be compliant with laws, policies and other statutory requirements guiding companies. It further emphasized that companies are not supposed to be forced before complying with legitimate rules and laws guiding the disclosure and compliance of company information in the financial statements. Compulsory information is seen as the legitimate right of companies to comply with, while compliance with voluntary information is based on the materiality of the information to the items in the financial statement and the discretion of the managers. However, it is advisable for a companies' managers to provide all information that are germane and that can boost levels of understanding of the public as a whole. It is one of the theories that supports the theoretical objective of this study. Guthrie and Parker (1990:159) suggest that organizations comply with laws, policies and other rules and regulations in order to get positive reactions from their operating environment. Patten (1991:297) stated that Corporate Social Responsibilities Disclosure (CSRD) which is one of the legitimate rights of managers to perform to their immediate environment, may also be seen as a tool to enhance transparency, accountability and can reduce the political, social and economic exposure to pressure. Dillard, Rigsby, and Goodman, (2004:506) also suggested that (CSRD) is a way in which some organizations can improve on their voluntary legitimacy. The theory is therefore is one of the theories underlying Corporate Social Responsibility in order to perform (CSR) within companies which in turn improves the quality of reporting and improves firm value in the long-run.

2.5.2 Litigation cost Theory

This study looks at the Litigation Cost Theory from two angles. Managers may want to disclose information because they may be afraid of litigation because legal action can be levied against managers and the company for inadequate or untimely disclosure. Therefore, Litigation Cost Theory can encourage firms to increase their volume of voluntary disclosure. On the other hand, litigation can also hinder or demotivate managers to disclose vital and material information (Oluwagbemiga (2014:263), Ni and Yu (2008:97) especially when the nature of the information can lead to further litigation or is information that is harmful to the stakeholders and can threaten the company's going concern. Skinner (1994:38) stated that bad earnings disclosure may be delayed or may be pre-disclosed to reduce the cost of litigation because it is bad news that can

negatively affect the business. Adeyemi (2006:8) stated that pre-disclosure of bad news may help investors to make an unbiased assessment of the bad news.

2.5.3 Conclusion

Legitimacy in this study postulates that companies should voluntarily comply with codes, laws, policies and regulations without enforcement. This enhances transparency and accountability and helps in the sustainability of firm value. On the other hand, Litigation Cost Theory holds that legal action or other punishment should be levied against managers and the companies with inadequate or untimely disclosures or failures to comply with any law, rules, code of corporate governance and regulations of companies. This enhances proper compliances and disclosure and boost firm value in the long-run.

2.6 Empirical literature

2.6.1 Introduction

This chapter reviewed past and related studies on corporate governance and firm value, accounting ratios and firm value from the world literature. For better understanding and clarification, the study grouped the literature into both the developed and developing world. This is done purposely in order to discover gaps in the existing literature. The objective of this review is to discover gaps in the literature and to establish the originality level of the study.

2.6.2 Prior studies from Developed countries on corporate governance and firm value.

Ammann, Oesch and Schmid (2011:36) studied corporate governance and firm value in 22 different countries from 2003 to 2007 by employing Governance Metrics International (GMI).A positive relationship was found between corporate governance and firm value. This present study also relates corporate governance with firm value, but differs because it did not employ GMT.

Delen, Kuzey and Uyar (2013:3970) employed a decision tree approach and a set of financial ratios to predict the firm performance using a two-step analysis methodology, exploratory factor analysis (EFA) and predictive modeling method. Findings showed that the decision-tree algorithms and sensitivity analysis produced the best prediction accuracy result. It indicated that the EBT to equity

ratio and net profit margin are the two most important ratios that predict firm performance. This research differs by studying the impact of corporate governance on firm value.

Duc and Thuy (2013:1) studied the corporate governance performance of Vietnam's listed firms by employing a flexible generalized least squares (FGLS) technique from 2006 to 2011. Findings indicated that the corporate governance variables employed and firm performance are positively related. This research differs by looking at only corporate governance and firm value and not firm performance. This also is an integral part of this research. The variables employed to represent corporate governance are also different except director's remuneration which this research considers.

Bhagat and Bolton (2008:1803) shed light on several ways in which corporate governance could be measured by studying corporate governance and firm performance. The carried out a robustness check on the variables and found out that better governance as measured by the Gomper et al (2003:107) enhance firm value. This research differs by using an examination of corporate governance, accounting ratios and firm value with Tobin's Q and market capitalization.

Albassam, (2014:182) examined the level of voluntary compliance with Saudi's corporate governance code (SCGC) by investigating whether the introduction helped and improved the corporate governance stand in the Saudi context. He retrieved data from annual reports employing integrated research design, and compliance index model. Panel data analysis was constructed on 80 listed firms from 2004 to 2010 out of 560 firms using both qualitative and quantitative method of research design. A multi-theoretical framework of agency, signaling, stakeholder, stewardship and resource dependence theories was employed. Findings revealed that the Saudi corporate governance index (SCGI) has helped improved voluntary corporate governance disclosure among Saudi listed firms.

Black, Jang and Kim (2006:366) constructed a corporate governance index for 526 listed companies in order to study the importance of corporate governance to market value on the Korean stock exchange by employing OLS. Findings revealed that a corporate governance index predicts Tobin's q and increases in the market to book ratio. This research study differs from their study because it does not use a corporate governance index and other variables used except Tobin's q that was considered as firm value.

Pourari and Arasteh (2013: 943) theoretically and experimentally reviewed liquidity, corporate governance and firm value by looking at their relationships and employing OLS as a statistical tool. Liquidity and corporate governance; corporate governance on the firm value revealed a positive relationship. The present study is closely related to Pourari and Arasteh study because liquidity ratios are part of accounting ratios but differs because the study employed different variables to represent corporate governance.

Dittmar and Mahrt-Smith (2007:599) studied how cash holding in a differentiated poorly and well-governed firm's corporate governance impacts firm value. This is done by comparing value and the use of cash holding in those firms and by employing panel ordinary least square method. Findings revealed that firms with poorly corporate governance waste cash quickly than well governed firms.

Ammann, Oesch and Schmid (2011:36) investigated whether there is a correlation between better corporate governance and firm value, regardless of the estimation technique used. It was found that better corporate governance is related with firm value. This study differs because it only considers corporate governance which a part of the present work.

Abdullah and Valentine (2009:88) carried out theoretical review various theories on corporate governance. They suggested multi-theoretical framework is the best to describe good and effective corporate instead of using one theory. The present study is an empirical study and not a theoretical review although it also reviewed related theories in line with the study.

Duhnfort, Klein and Lampenius (2008:424) also reviewed some theories on corporate governance by employing the principal-agent approach. Findings revealed that all theories revolve around Agency Theory that is the conflict between the principal and the agent. The present study is an empirical study and not a theoretical review, although it also reviewed related theories in line with the study.

Lazarides and Pitoska (2009:1) studied corporate governance and Debt to equity ratios by employing Panel data analysis. Findings revealed that variables like the corporate governance index (CGI), mergers and acquisitions, the major shareholder as the CEO and the dismissal or resignation of executive, non-executive and independent members of the board are not significant with the debt to equity ratio. Corporate governance also revealed a negative impact on capital

structure which is the opposite of the findings of Sheifer and Vishny (1997:737). They found out that corporate governance and capital structure are significantly related. The present study differs because it did not relate corporate governance with capital structure, although the debt equity ratio was one the explanatory variables used in this study.

Dzia (1998:1) empirically studied corporate governance in Poland during economic transformation. Fifty-nine Polish listed and 91companies listed Swedish on the Warsaw and Stockholm stock exchanges were sampled using the OLS method. Findings revealed that corporate governance improves firm efficiency.

Li, Chen and French (2012:465) examined corporate governance and the value of firm, as well as liquidity and corporate governance through hypothesis testing they found out that liquidity improves corporate governance and that the better governance enhances the value of Russian firms. This study differs because it includes accounting ratios to corporate governance and firm value.

Guest's (2009:385) study looked at board size and firm performance in UK listed firms from 1981 to 2002, using an econometric model. A negative impact was found between board size and profitability, Tobin's q and share returns.

Dolenc, Stubelj and Laporsek (2012:51) carried out a theoretical review on corporate governance models and summarized all theories into two: Shareholder Theory (shareholder's value maximization) and Stakeholder Theory and define the firm's objective more broadly. They concluded by saying that firm's objectives lie between these two theories and that firms should follow the principle of shareholder value maximization which is the primary objective of firms and bear the interest of other stakeholders in mind.

2.6.3 Review of corporate governance and firm value in developing countries

Qeisari,and Ahmadi (2016:101) sampled 62 listed companies on Tehran's stock exchange covering 2009 to 2013. They studied the corporate governance of those companies and examined the impact thereof on firm value by employing multivariate regression analysis. A positive and significant relationship was revealed between corporate governance variables and firm value,

which was represented by Tobin's q. The present study did look at corporate governance and firm value and also uses Tobin's q as the firm value but differs with different explanatory variables.

Darmadi (2011:1) examined the performance of corporate governance through board compensation in an emerging economy by sampling 255 listed firms out of a total population of 442 from 2006 to 2007. It was revealed that board compensation and firm value are positively related. The present study also considered executive compensation as one of the explanatory variables that improves firm value, but other variables are different from the existing study.

Jia and Chen (2007:1) reviewed prior studies on corporate governance variables as used in the literature so far. They identified some corporate governance variables that have been used and how they affect firm value. The study revealed a mixed result as their general conclusion as shown in the table below.

Table 2.1: Corporate governance mechanism mixed results

Category	**Variables**	**Relationship affecting firm value**
Ownership Structure	Insider share ownership	+
Board Characteristics	Board size	+ or -
	Board diversity	+ or -
	Outside Directors Percentage	+ or -
	Board meeting Frequency	+ or -
Managerial group	CEO Duality	-
	Executive Compensation/ director's remuneration	+

Source: Jia and Chen, 2007:6

Hussein and Venkatram (2013:353) studied corporate governance and firm value by randomly sampling 64 firms between 2007 and 2011, constructed panel data from the data collected and conducted both the Fixed and random effect model, as well as panel OLS. The empirical results revealed that only board size had a significant and positive impact on Tobin's q while board composition and board activity did not show any effect on Tobin's q. This present study is also a panel study, adopts Tobin's q and board size, but other explanatory variables are different in the existing study.

Gupta, Kennedy and Weaver (2009:293) also examined corporate governance and various measures of firm value by employing data from 2002 to 2005. The test revealed no association between the composite corporate governance scores and firm value measures. The present study differs because it did not employ the corporate governance score.

Tornyeva and Wereko (2012:95) investigated the corporate governance and financial performance of Ghana's insurance companies by employing the panel OLS method of analysis. A positive relationship was revealed between corporate governance variables employed in the study and financial performance. The present study did not cover financial sector because of their financial statement peculiarity and also variable considered for corporate governance are different.

Ebere, Ibanichuka and Ogbonna (2016:34) investigated the relationship between corporate governance variables and firm performance in the Nigeria insurance companies from 2008-2015 respectively. Data were retrieved from 14 insurance companies and analyzed using Pearson's correlation and multiple regression analyses. Findings revealed a positive relationship between board size and ROA, Board composition and EPS are also statistically significant. Board size and EPS are also part of the variables used in this study, but other variables are different and also the study does not cover the financial sector.

Florinita (2014:79) constructed a governance index to measure the quality of corporate governance disclosed in the annual reports of listed firms in Rome and also examined corporate governance and liquidity. Data was retrieved from annual report of those firms from 2006 to 2013 through random sampling method and regressed. A positive relationship was revealed between corporate governance and liquidity. The variables considered for corporate governance are different and the present study did not employ a governance index. However, the similarity is the liquidity, which formed part of the Accounting Ratios considered in this present study.

Ismail (2013:241) assessed the relationship that exists between corporate governance and integrity in Malaysian companies by employing both secondary and survey methods. He then data analyzed using OLS. The result revealed an inverse relationship between integrity and good corporate governance. This study differs from the existing work because it is purely quantitative and it includes other parts of Accounting Ratios and Firm Value.

Rouf (2011:73) examined mechanisms of corporate governance variables such as board independence, duality of executives, board size, audit committees and firm value. The study employed OLS to analyze data obtained from the annual reports of 93 listed firms on Dhaka's stock exchange (DSE). Findings revealed a positive and significant relationship between ROA and the boards' independent directors, as well as between ROE and chief executive duality. However, an inverse relationship was revealed between the value of the firm and (ROA) and the board size, between the value of the firm (ROE) and the board audit committee. Although this work is a source of inspiration because of similarities in some variables used, such as board size and ROA, there are other variables that are differently used. However, the two studies employed different dependent variables with different locations.

Nyaoga, Kefah and Erick (2014:113) assessed executive compensation and financial performance in Kenya. The study employed regression analysis. The result revealed an inverse relationship between executive remuneration and shareholder returns. The present study also used directors' remuneration, but it was not related to shareholders' wealth maximization as a measure of performance.

Wakaisuka-Isingoma, Aduda, Mwangi and Wainaina (2016:1261526) reviewed corporate governance variables and the performance of Uganda's financial institutions. The study also reviewed various theories on corporate governance. The results revealed that corporate governance and performance have a positive relationship and that the combination of theories is the best to support a corporate governance study. This present study does not only consider corporate governance, but also considers Accounting Ratios and Firm Value.

Yatim (2009:19) examined corporate governance and firm performance by carrying out a cross sectional data analysis amongst 428 listed firms in Malaysia. Data was regressed. The results showed that directors' remuneration is positively and significantly related to firm performance, CEO tenure, board size, firm size, firm growth and is inversely and significantly related to board independence. The study is different from this research work because directors' remuneration and board size are just integral parts of the variables employed in this research work.

Amess and Brake (2003:1) also studied directors' remunerations and firm performance. They employed time series panel data from 1991to 1996. Profitability and remuneration revealed a

positive relationship and a weak relationship between director's remuneration and firm performance was also indicated. This present study also employed executive compensation as one of the explanatory variables but supported it with other different explanatory variables in order to determine the impact of corporate governance has on firm value.

Maher and Anderson (2000:1) reviewed Shareholder and Stakeholder models of corporate governance and also examined some of the strengths, weaknesses and economic implications associated with various corporate governance systems by employing a survey method on OECD countries. During the research, they employed the following corporate governance variables concentrated ownership, executive remuneration schemes, and the market for takeovers. It was found that micro economic variables are important factors in the economic performance of OECD countries and that macro-economic policies and micro-economic variables are complementary. The present study only considered executive remuneration and did not relate the work to micro and macro-economic variables, but related the study to firm value.

Moeljadi (2014:6) examined the theoretical relationship between social responsibility, corporate governance, company size, corporate profitability and firm value in the context of manufacturing companies listed in Indonesia stock exchange. The study classified the variables into three variable types: exogenous, endogenous and intervening variables. The result produces a model about the relationship among exogenous, endogenous and intervening variables.

Bender (2004:521) assessed performance- related pay as an aid to the performance of some executive directors. It was found that many companies adopt this structure because it attracts and retains directors. It is a means of commitment to their work, better governance and for future larger earnings. This is one of the variables considered in this study. The other variables make it different from this present study.

Muller (2013:983) assessed the executive compensation and financial performance of listed companies by employing multiple regression model on five features of directors' remuneration and company performance. ROA and ROE were the measures of dependent variables and data from 2010 to 2011 were sampled from the London-listed stock exchange. Findings revealed that ROA and ROE are significantly related to financial performance represented by directors' total

emoluments. This study differs because different variables were employed, except ROA and directors' remunerations which both studies employed.

Koech, Namusonge and Mugambi (2017:37) studied corporate governance and board characteristics in Kenya. Descriptive surveys on 46 companies and data gathered through questionnaires were regressed. The findings showed that board characteristics were positively correlated with corporate governance variables in Kenya. The regression analysis result revealed that board characteristics are a good measure of the effectiveness of corporate governance in Kenya's government. This study differs because both studies tend towards different directions one-towards government corporations and another towards private listed and limited companies.

Heenetigala (2011:1) examined corporate governance and firm performance by employing comparative analysis from 2003 to 2007. Findings revealed a positive relationship with separate leadership, board composition, board committees and firm performance represented by ROE. Both board composition and board committees also had a significant relationship with performance measured by Tobin's q, while CSR reporting practices by the firms remained indifferent to firm performance. Both studies differ because they employed different variables.

Otman (2014:1) employed a quantitative and qualitative method of research to study corporate governance and the performance of companies. Data from 2010 to 2011 were retrieved from listed companies on Abu Dhabi's securities exchange. Pearson and Spearman correlations as well as Descriptive statistics were employed to analyze the data through OLS and generalized least squares (GLS). Qualitative results from the survey revealed good compliance and the implementation of governance principles by the companies under review. The results of the correlation test and regression analysis revealed a positive relationship between corporate governance and firm performance. This is consistent with the saying that good corporate governance improves firm performance, both in financial terms and in value.

Agyei-Mensah (2016:79) investigated firm-specific features and financial ratio quality disclosure by firms on Ghana's stock exchange. Data was retrieved from the 2012 annual reports of companies and he analyzed the data by conducting descriptive statistics and regression analysis. The results showed that the disclosure level of financial ratios was low. Multiple regression analysis revealed gearing ratios and returns on investment as statistically significant, while Board

ownership concentration and the proportion of independent non-executive directors were statistically associated with financial ratio disclosure. There is an inverse relationship between ownership concentration and financial ratio disclosure, while a positive and significant relationship was found between board composition and financial ratio disclosure. These results are a source of inspiration to this study because they relate ratios with corporate governance which this study is trying to do, but differs with different variables and with different countries.

Abdulkarim and Alawneh (2009:109) investigated corporate governance and the performance of Palestinians firms. Firm performance was measured by Tobin's q and corporate performance was determined based on the level of ownership concentration. Data was retrieved from 16 sampled firms and analyzed using regression techniques. The results failed to give a decisive result between ownership concentration and market value, as measured by Tobin's q in the years under review. Both studies considered Tobin's q as the dependent variable but with different independent variables.

Rao and Desta (2016:551) also studied corporate governance and the performance of Ethiopian banks. Data were retrieved from the sampled banks' annual reports. The dependent variables are return on equity and return on asset while explanatory variables are board-size, board gender diversity and ownership type. Correlation and regression results indicated a non-significant influence between all corporate governance variables used and financial performance while asset size and capital structures have on both the return on equity and return on asset. ROA was used here as a dependent variable, but the present study considered it as one of the explanatory variables employed. However, both studies considered board size as one of the explanatory variables.

Owusu (2012:1) investigated corporate governance and firm performance in a study that was prompted by the introduction of Ghana's 2003 code. The study also measured the level of compliance with the governance code from pre- and post- introductions of the code. Data from 2000 to 2009 were retrieved from the annual reports of the companies under review, and regressed. The regression result revealed that CEO duality, board size, proportion of non- executive directors, audit and remuneration committees had mixed results with firm performance. Both studies employed board size, but other variables are different.

Flodberg and Nadjari (2013:1) studied corporate governance and firm performance by constructing corporate governance indices and models on 190 Nordic firms from 2004 to 2011. Cross-sectional time series data and pooled OLS panel analyses were employed for the study. Findings revealed a positive and significant relationship between corporate governance and firm performance. The two studies differ by method of approach and the introduction of the governance index because this present study did not employ the governance index.

Marashdeh (2014:1) investigated corporate governance and firm performance in Jordan from 2000 to 2010 by sampling 115 listed firms. The study employed Agency Theory and panel OLS analysis and Generalized Least Square (GLS) Random effect models as the statistical method. Board size and firm performance did not reveal any relationship, but CEO duality did reveal a positive effect. Non-executive directors have an inverse relationship to firm performance, while managerial ownership and ownership concentration have an inverse impact on firm performance. This study also related in terms of the method employed, but differs in variables employed except board size.

Kumar (2005:61) examined ownership structure and firm performance in Indian corporate firms. Panel data was constructed from the sampled firms and analyzed with panel OLS. Findings revealed a non-linear relationship between shareholding by institutional investors, managers and firm performance. He also found that the equity ownership influences firm performance. The study only covers corporate governance aspects of this current study, but employed different variables. Accounting ratios and firm value make the studies different.

Mans-Kemp (2014:1) carried out empirical study on the corporate governance and financial performance of selected firms on the Johannesburg Stock Exchange (JSE) from 2002 to 2010. Two hundred and twenty-seven companies were sampled of 1417 using convenience and judgmental sampling. Descriptive and inferential analyses were conducted, as well as panel data analyses were employed. The descriptive statistics revealed that there is an overall increase in the corporate governance compliance trend, while corporate governance and EPS revealed a positive and significant relationship. An inverse relationship is revealed between total share returns and corporate governance score. This study differs because both studies employed different variables to measure corporate governance. This present study did not construct a corporate governance score.

Meyer and Wet (2013:19) studied board structure and the financial performance of listed South African companies. Data was retrieved from the annual reports of the sampled listed companies and regressed. A positive correlation and significance was found between independent non-executive directors and firm performance, but was insignificant with Tobin's q ratio as a measure of firm performance. Board ownership is negatively and significantly correlated with firm performance as measured by EPS; enterprise value and Tobin's q ratio. A positive relationship between board size and firm performance was found. This study differs because both studies employed different variables to measure corporate governance.

Kyereboah-Coleman (2007:1) examined corporate governance and the performance of firms. Data from 103 listed firms were retrieved from Ghana, South Africa, Nigeria and Kenya from 1997 to 2001, analyzed by panel data. Findings revealed that large and independent boards enhanced firm performance and an inverse relationship was revealed between combinations of CEO and board chairman positions and the performance of firms. A positive influence was found between Audit committees and the frequency of their meeting. This is a cross-country study and the present study is not. The two studies also employed different variables.

Ahmed and Hamdan (2015:21) examined corporate governance and firm performance in Bahrain with data were retrieved from 42 companies sampled out of 48 companies from 2007-2011. A Descriptive method was employed and the result indicated that performance as measured by ROA and ROE is significantly related to corporate governance, but EPS revealed an inverse relationship with corporate governance in Bahrain. This study differs because both studies employed different variables to measure corporate governance, except ROA that both studies employed. However, while ROA was used as a dependent variable, it was used as an explanatory variable in this present study.

2.6.4 Conclusion

From the above review of related literature, the study discovered that there have been many studies on corporate governance, especially in relation to firm performance in developed countries. However, in developing countries this area still needs more research. In Nigeria for example, there are no studies on corporate governance and firm value or even if there are, they would be very few based on the level of this research. Those studies available are related to firm performance. Further

findings revealed that the results of studies on corporate governance with either firm performance or firm value had been mixed. Some results support that corporate governance variables have a positive and significant impact on firm performance or firm value, while some results are indifferent and some show a negative impact on firm performance or firm value. Some variables are giving contradictory or conflicting results in different countries, or even in the same country.

2.6.5 Prior studies from Nigeria on corporate governance and firm value.

Obiyo and Lenee (2011:1) examined corporate governance and firm performance. Time series cross-sectional data were employed and regressed. It was found that return on equity, net profit margin and dividend yield are positively related to corporate governance. This research differs in the sense that it does not look at into performance but rather considers firm value.

Akinloye, and Olasanmi (2014:13) evaluated corporate governance and the level of compliance of listed firms with the2003 Code of Best Governance. A data set was obtained from the firm's annual reports and other related publications from 2003 to 2010 and analyzed using descriptive statistics. The researchers constructed a corporate governance index and it revealed that a 72.15 % firm's compliance level and a growth rate of 5.83% with the code of corporate governance. The research differs because the present study did not employ a governance index, although the level of compliance with the 2003 code as amended to the National Code of Corporate Governance was also examined.

Akeem, Terer, Kiyanjui and Kayode (2014:1) examined corporate governance and the performance of Nigeria insurance companies. The data analysis technique employed was OLS as a method of estimation. Findings revealed that corporate governance mechanisms impact ROE significantly. This research is different because it considers all the sectors of Nigeria listed companies except the financial sector from where insurance companies belong.

Adegbile (2015:48) also assessed corporate governance and capital structure in the Nigerian food and beverages industry from 2003 to 2012. Random Sampling was employed, while data were retrieved from their annual reports of those companies. The data generated from the annual report of the sampled firms were analyzed using Pearson correlation coefficient and multivariate regression analysis. Findings revealed that tangible asset and growth are positively related with leverage. This research differs from the above because it considers different variables to measure

corporate governance and firm value. Also, the present study is not limited to only the food and beverages sector. It covers all sectors except the financial sector.

Duke II and Kankpang (2011:46) tried to fill the gap in the world's literature by studying corporate governance in privately-owned firms. This was achieved by employing a survey method and using a balanced sample to get the link between quoted and unquoted firms. Findings revealed that there was a strong relationship between corporate governance and firm performance. This study on corporate governance differs from the present study because it covers listed companies and not unquoted companies.

Uwuigbe, Peter and Oyeniyi (2014:159) also examined corporate governance and earnings management in Nigeria. Data from 2007 to 2011 was collected from 40 sampled company annual reports from Nigeria's Stock Exchange and regressed using judgmental sampling. Findings revealed that both board size and board independence have a negative and significant impact on earnings management. Also a positive and significant effect was revealed between CEO duality and earning management. This study differs by relating corporate governance to firm value and not to earnings management although both studies share some variables together such as board size.

Effiok, Effiong and Usoro (2012:84) studied corporate governance, corporate strategy and corporate performance. Data was retrieved from the annual reports of 33 listed financial institutions in Nigeria and analyzed. A multiple regression model was employed for the analysis. Findings revealed a positive relationship between corporate governance and firm performance. This research differs because both studies adopt different variables extracted from the annual reports of the sampled institutions.

Amupitan (2015:64) examined the challenges facing corporate governance in the Nigeria banking industry. Primary data were employed using a survey method with questionnaires as the research instrument. Findings revealed ineffective corporate governance results in the failure of banks in Nigeria in the pre-consolidation era. This study differs because it does not link corporate governance with corporate failure and does not cover the financial sector.

Ene and Bello (2016:99) studied corporate governance and the financial performance of banks in Nigeria. Data were sourced from Nigeria's Stock Exchange Fact Book issued from year 2004 to

2013. They employed the ordinary least square regression technique with the aid of SPSS software. The study revealed that the corporate governance variables used and performance of banks are significant in Nigeria. Although the study is on corporate governance and performance, it is out of the scope of this present study because the current study does not cover the financial sector.

Garba and Abubakar (2014:257) investigated board diversity and the performance of Nigerian insurance companies. They selected 12 listed insurance companies using a non-probability sampling method in the form of the availability sampling technique from 2004 to 2009. ROA, ROE and Tobin's q were used as measures of firm performance and the statistical tools used were the feasible generalized least square and random effect estimators. A positive influence was revealed between gender diversity, foreign directors and company's performance but significant and inverse relationships existed between board composition and performance. The study differs because it is also in the financial sector, which the present study does not cover.

Obeten and Ocheni (2014:57) investigated corporate governance and Nigerian bank performance Data was obtained from published annual reports and accounts of the selected commercial banks and CBN publications. The ordinary least square technique was employed to estimate the data captured using a multiple regression model. The findings revealed that bank performance increased within the years under review as the asset base of the banks increased and corporate governance variables were employed is positive for bank performance. The study differs because it is also in the financial sector, which the present study does not cover.

Suleiman (2014:113) examined corporate governance and conservatism in the Nigerian food sector. Data was obtained from companies' annual reports for the period 2003 to 2010 and the Fact Book of the Nigerian Stock Exchange. Data was regressed. The results revealed an inverse and significant influence of board size and a positive and significant influence of an independent board of directors and accounting conservatism. Both studies used board size, but other variables are different.

Imeokparia (2013:1083) studied corporate governance and financial reporting in the banking industry. A primary data collection method was adopted and 133 questionnaires were administered amongst regulatory institutions, employees and customers of the bank. The data collected were presented in the form of tables and frequencies and analyzed using SPSS. Findings revealed

diverse ethical issues as one of the challenges facing the Nigerian banking industry. This study differs because it is also in the financial sector, which the present study does not cover.

2.6.6 Conclusions from the review of Nigerian literature

From the above review of Nigerian literature, findings revealed that there has not been any study in Nigeria that combines corporate governance with accounting ratios. It also reveals that there are few studies on corporate governance in Nigeria and even those studies tend towards firm performance and not Firm Value with few sectors. This was one of the motivations of this study and the gap the study covered.

2.6.7 Review on Accounting Ratios and Firm Value from developed countries

Karaca and Savsar (2012:56) examined financial ratios and firm value. Panel data analysis was constructed and analyzed for 36 firms from 2002 to 2009 and analyzed. A significant and positive relationship between receivables turnover and firm value and a significant and inverse relationship between inventory turnover and ROE was revealed. No significant relationship was detected with the other ratios that were significant. The study covers a part of this current study and is a source of inspiration for it. Although different variables were adopted, the model was modified to suite the present study.

Tuvadaratragool (2013:1) investigated company characteristics and business failure amongst listed companies in Thailand from 2003 to 2008. Data was retrieved from the annual reports of the sampled companies where ratios were computed from the annual report to predict corporate failure. Some companies that revealed low ratios from the computations were assumed to be facing going concern problem and that if management refused to take proper and urgent solutions, those companies would fail. This current study did not tend towards corporate failure predictions. Rather, it tends towards accounting ratios and their effects on firm value.

Lincoln (1984:321) also used Accounting Ratios to predict corporate failure. Prior studies used a discriminate analysis technique to develop a model for predicting whether a firm will or will not fail. Findings revealed that financial statement ratios computations can be used to predict or signal corporate failure. This current study did not tend towards corporate failure predictions. Rather, it tends toward accounting ratios and their effects on firm value.

2.6.8 Review on Accounting Ratios and Firm Value from developing countries

Rayan (2008:1) evaluated whether, in a South African context, an increase in financial leverage positively or negatively impacts firm value. Data were retrieved from 113 firms listed on the Johannesburg Stock Exchange from 1998 to 2007 was regressed and analyzed. Findings revealed that an increase in financial leverage is inversely correlated with firm value, while that of interest rate and capital structure is indifferent. This study covers gearing ratios which are part of the Accounting ratios that this present study covers, but other parts of accounting ratios are also added.

Baba (2014:1) examined Accounting Ratios and Firm Value amongst Malaysian listed companies through the use of regression analysis. Findings revealed that both liquidity and profitability ratios are significant to Firm Value. The study recommended the disclosure of more Accounting Ratios in the annual reports for more accountability and transparency. This study covers a part of this current study, but a different approach in terms of methodology was adopted.

Asiri and Hameed (2014:1) measured how financial ratios explained Firm Value in Bahrain listed companies from 1995 to 2013. A pool data cross sectional-time series was employed with a total number of 646 observations, and later regressed. The paper found out that ROA is a major factor that explains market value going by gearing and beta. The authors also found that the size of the firm measured through total asset and Tobin's q ratio and market value are significant. Asiri and Hameed study covers Accounting Ratios and Firm Value, which is a part of this current study and is a source of inspiration to it. However, different variables were employed and the model was modified to suite this present study.

Rajhans and Kawalpreet (2013:70) empirically studied Firm Value creation and its determinant. The study discovered from prior studies that net sales, profit, fixed assets, dividend pay-out and capital structure were financial variables affecting a firm's value. Data from 2002 to 2011 was collected from annual reports of the companies listed on the Bombay Stock Exchange (BSE). The Stationarity test was used and thereafter the pooled regression model was employed. Findings go along findings on support of Modigliani and Miller's (MM) theory that capital structure does not influence the value of a firm. The study also revealed that WACC and value of the firm are significantly related. The study consolidates the present study results that Accounting Ratios affect Firm Value, although the two studies employed different variables.

Liang, Shih, Lu and Tsai (2016:561) conducted a corporate governance index to predict company's failure. The experimental results based on a Taiwanese dataset show that the financial reporting standard category of solvency, profitability, CGI category of board structure and ownership structure were considered to the most important features for bankruptcy prediction. The current study did not tend towards corporate failure prediction and does not use the corporate governance index, it rather tends toward Corporate Governance, Accounting Ratio and its effects on Firm Value, although corporate governance and accounting ratios can be used to predict corporate failure.

Hossan, and Habib (2010:1) also measured performance through ratios analyses of pharmaceutical companies in Bangladesh. This was done by comparing the ratios of two companies from 2007 to 2008, in order to determine how well the two pharmaceutical companies were performing. That study differs from the present study by its method of approach. Accounting ratios were also computed in this current study but were related to how they affects Firm Value.

Banafa (2016:1) examined the effect of accounting ratios on return on equity. The study employed panel data over a five years' period from 2009 to 2013. The data capture was regressed using the E-views software statistical package. Their findings revealed that liquidity and firm size influence the firm performance, while debt is inversely correlated to ROE. The study relates to accounting ratios and firm value, which cover a part of this study, and differs from the current study because different ratios were employed.

Abdoli and Zadeh (2015:27) evaluated the liquidity, corporate governance and firm value of Tehran listed companies from 2008 to 2012. Multivariate linear regression was employed to analyze the sampled data. A positive and significant relationship result was revealed between liquidity and firm value as well as a significant correlation between the proportion of outside board members and firm value. The study slightly related to the present study, but the approach is different. This study does not cover all accounting ratios, but only covering liquidity ratios.

Wu and Liu (2012:1) investigated stock liquidity and firm value in Taiwan. The ordinary least square method and two-stage least square method were employed. The study revealed that liquidity and stocks positively affect firm performance. Moreover, stock liquidity on firm performance was

significantly related. The study does not cover all Accounting Ratios, but only covers liquidity ratios and is only related to a part of the current study.

Lakshan and Wijekoon (2012:191) examined corporate governance futures and corporate failure in Sri Lanka. Ordinary square regression analysis was employed to analyze the data retrieved from the annual reports of the sampled 70 failed firms and sampled 70 non-failed firms listed on Colombo's stock market between 2002 and 2008. Corporate failure revealed an inverse association with corporate governance variables used, while CEO duality is positively related with the possibility of failure. This study differs because the scope of the present study is Firm Value and it did not cover corporate failure, even though Accounting Ratios can be used to determine whether a company's going concern is threatened or not.

Antwi, Mills and Zhao (2012:103) examined capital structure and firm value. Thirty-four 34 listed companies were sampled from Ghana's Stock Exchange (GSE) in 2010. The ordinary least square regression method was employed. The results of their study revealed that both equity capital and long-term debt as a component of capital structure are major determinants of a firm value. This study sees capital structure as an important factor that improves firm value, the current study does not employ capital structure, and although both studies look at how firm value can be improved.

Rezaei and Jalilmehr (2012:864) investigated how corporate governance affect Accounting outcomes and performance. The study covered the period from 2005 to 2010. Seventy-seven companies were sampled out of 448 companies listed on the Tehran stock market using a systematic sampling method. OLS method of regression was employed to analyze the data. It was revealed that corporate governance is significantly related to the future performance of firms. This study differs because it relates corporate governance with accounting outcomes and accounting outcomes may mean different things, not only firm value and accounting ratios.

2.6.9 Conclusion

From the above review, findings revealed that there is still a lot of work to cover in this area of research because in the world literature, little research has been carried out on Accounting Ratios and Firm Value from both the developed and developing world. The few studies even tend towards Accounting Ratios analysis and the interpretation of financial statements. This was part of what motivated this research work.

2.6.10 Review on Accounting Ratios and Firm Value from Nigeria

Enekwe (2015:17) also examined financial ratio analysis and corporate profitability. Data was obtained from the annual reports of the sampled quoted companies in Nigeria from 2008 to 2012. The study employed Descriptive statistics, Pearson's correlation and regression. The result of the analysis showed that asset turnover ratio, debtors' turnover ratio and interest coverage are positively and statistically related to ROA, while debt equity ratio and creditors' turnover ratio are negatively and statistically insignificant to corporate profitability. This study differs because it is only on ratio analysis, while the current study employed another approach.

Mbat and Eyo (2013:19) considered the factors that can cause corporate failure and its remedies. They used a variance analysis method to analyze the study. It was revealed that the failure of many companies is from mismanagement, which is corporate governance. The study did look into corporate failure, which makes the present study differ because the current study tends towards value-maximization. In conclusion, the summary of all the tabular literature reviewed from both developed and developing world are therefore explicitly summarized in the table below for better clarification of gap:

Table 2.2: Summary of Empirical Literature

Authors	**Research focus**	**Objective(s)**	**Methodology**	**Findings**	**Locations**
Ammann etal, 2011	Corp. gov. & firm value 2003-2007	Comparative analysis among 22 countries	GMI	C.G variables and firm value are positively related	USA, Germany Switzerland
Delen etal, 2013	Ratios & firm performance	Employed ratios to determine firm performance	Exploratory factor & predictive model analysis	Most of the ratios are good predictor of firm performance	USA/ Turkey
Duc & Thuy, 2013	C.G. & Firm performance 2006-2011	Studied the relationship btw. C.G. and firm performance	Feasible generalised least square (FGLS)	Variables are positively related except board ownership.	Vietnam

Bhagat & Bolton, 2008	C.G. & firm performance	Shed light on how C.G could be measured	(GMI)Governance matrix international	Better governance is enhanced by firm value.	USA
Gomper et al, 2003	Shareholder's right	Determined relationship between shareholders' right & firm value.	Governance index for 1500 firms.	Stronger shareholders' right had higher firm value	Harvard
Albassam, 2014	C.G voluntary disclosure & Firm Perfor.	Analysed Saudi corp. governance code	Integrated research design framework.	Revealed mixed result among C.G variables.	Saudi Arabia.
Black etal, 2006	C.G and market value	Determine the importance of C.G to market value of firm.	Matrix index to determine the causality factor.	Corporate governance index improve firm value	Korea.
Dittmar &Mahrt-Smith, 2007	Governance of firms	To determine the impact of governance of firms	Panel OLS	Poorly governance firms waste cash than better governed firms.	USA, Canada
Lazarides & Pitoska, 2009	Capital structure and executive remunerations	Determined the impact of debt financing on firm performance.	Panel data analysis	Debt affect performance of firms and that Greek firms employed debt than equity	Greece
Qeisari & Ahmadi, 2016	Firm value determination	Studied the relationship between corp. gov. & firm value among 62 firms	Tobin's Q was employed as a dep. Variable. Multivariate Regression.	Both internal and external corp. gov. variables are positively related.	Tehran

Source: Own research, 2019

Table 2.3: Summary of Empirical Literature (Continued)

Authors	**Research focus**	**Objective(s)**	**Methodology**	**Findings**	**Locations**
Darmadi, 2011	Corp. gov. and executive compensation	Examined determinants of board compensation and sensitivity of pay performance.	Tobin's Q Panel OLS regression analysis	Revealed that firm value is positively related to board compensation	Indonesia
Hussein & Venkatram, 2013	Corporate governance & firm value	Studied the effect of corporate governance on firm value.	(Tobin's Q) Panel data analysis	Mixed result: while TQ & board size are positively related board compensation did not.	India

Gupta etal, 2009	Corporate governance & firm value	Examined the association between the composite governance score & firm value	(Tobin's Q) Pooled OLS analysis & robustness check	No association was found between the two variables	Canada
Tornyeva & Wereko, 2012	Corporate governance & firm performance	Investigated the relationship between corporate governance & firm performance.	Pooled OLS analysis	Positive association between corporate governance & firm performance.	Ghana
Ebere et al, 2016	Corporate governance & firm performance	Investigated the relationship between corporate variables & firm performance.	(ROA) Pearson correlation & multiple regression analysis	Corporate governance variables contribute significantly to firm performance.	Nigeria
Florinita, 2014	Corporate governance & firm liquidity	Examined the relationship between corporate governance & liquidity	Multiple regression	Revealed a positive relationship between corporate governance & liquidity.	Rome
Rouf, 2011	Corporate governance & firm value	Examined corporate governance mechanisms as a measure of firm value.	Multiple OLS	Revealed a mixed result between corp. gov. mechanisms & firm value as measured by ROA & ROE	Dhaka

Source: Own research, 2019

Table 2.4: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	locations
Wakaisuka-Isingoma et al, 2016	Financial characteristics, eternal environment & firm performance	Examined the relationship among corporate governance, firm characteristics, external environment & firm performance.	Theoretical approach	Revealed that combinations of theories enhanced firm value	Bangladesh
Koech et al, 2017	Corporate governance &	Studied the impact of board characteristics on firm value.	Descriptive analysis	Revealed that board characteristics are positive correlated	Kenya

	board characteristics.		method & OLS analysis	with corporate governance.	
Heenetigala, 2011	Corporate governance & firm performance	Examined the relationship between corporate governance & firm performance.	(Tobin's Q) Descriptive analysis, Spearman's correlation & analysis of variance	Revealed a significant relationship between corporate governance & firm performance	Sri Lanka
Agyei-Mensah, 2016	Internal control information disclosure & corporate governance.	Examined the impact of corporate governance factors on the disclosure of internal control information.	OLS and descriptive analysis	Board independence is significantly related to internal control disclosure.	Ghana
RAO & Desta, 2016	Corporate governance & bank performance	Examined the impact of corporate governance variables on bank performance	(ROA) correlation coefficient & OLS analysis	Revealed no sig. influence between corporate governance variables & firm performance.	Ethiopia
Flodberg & Nadjari, 2013	Corporate governance & firm performance	Explained the link between corporate governance & firm performance.	(Tobin's Q) Corporate governance index & OLS	Revealed positive relationship between corporate governance & firm performance.	
Marashdeh, 2014	Corp. gov. & firm performance	Studied the effect of corp. gov. & firm performance.	Panel OLS & Generalized least square.	Mixed result was found between the variables.	Jordan

Source: Own research, 2019

Table 2.5: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	location
Mans-Kemp, 2014	Corp. gov. & financial performance	Investigated the relationship between corp. & firm performance.	Panel OLS analysis	Mixed result	South Africa
Meyer & Wet, 2013	Board structure & firm performance	Examined the relationship between the dynamic of board	(Tobin's Q) Linear Regression analysis and	Revealed a mixed result	South African

		structure & financial performance.	Pearson correlation		
Kyereboah-Coleman, 2007	Board size, composition & shareholder's value maximization	Examined corporate governance variables and firm performance.	Panel OLS analysis	Mixed result	Ghana
Armed & Hamdan, 2015	Corporate governance & firm performance	Examined the impact of corporate governance on firm performance.	ROA, ROE, & EPS) Multiple regression analysis	A positive influence was found between corp. gov. and firm performance.	Bahrain
Obiyo & Lenee, 2011	Corp. gov. & firm performance	Examined the relationship between corp. gov. & firm performance.	Time series & cross section analysis using governance score	Revealed a positive & significant relationship with all the variable.	Nigeria
Akinloye & Olasanmi, 2014	Level of compliance of firms	Evaluate corp. gov. code & level of compliance to 2003 code	Descriptive analysis corporate governance index	Governance index revealed 72.15 % level of compliance	Nigeria
Akeem et al, 2014	Capital Structure & firm performance	Examined the effect of capital structure on firm performance.	Descriptive and regression analysis	Mixed result was revealed.	Nigeria
Adegbile, 2015	Corporate governance & capital structure.	Assessed the impact of corporate governance attribute on capital structure.	Pearson correlation coefficient and multivariate regression analysis.	Mixed result was revealed.	Nigeria

Source: Own research, 2019

Table 2.6: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	locations
Joe Duke & Kankpang, 2011	Corporate governance & organisational performance.	Studied the relationship between corp. gov. and organisational performance of private owned companies.	(ROA) OLS &Pearson product moment coefficient of correlation.	Found a strong relationship between corporate governance and firm performance.	Nigeria

Uwuigbe et al, 2014	Corporate governance & earning management	Examined the effect of corporate governance mechanism on earning management.	OLS analysis	Mixed result was found between the two variables.	Nigeria
Effiong et al, 2012	Corporate governance, corporate strategy & corporate performance.	Provided evident that corporate governance should work together with other stakeholders	Descriptive analysis OLS model	Board member is important to effective corporate governance.	Nigeria
Ene & Bello, 2016	Corporate governance & financial performance.	It investigated the effect of corp. gov. & firm performance.	Pooled OLS	Revealed a relationship between the variables and financial performance.	Nigeria
Abubakar & Garba, 2011	Gender diversity & firm performance	Investigated the relationship between board gender diversity & firm performance.	Pooled OLS	Revealed that gender diversity & board composition are significant & positive influence on firm performance.	Nigeria
Obetan & Ocheni, 2014	Corporate governance & financial performance.	Investigated the effect of corp. gov. on bank performance.	OLS regression analysis	Revealed that the variable are determinant of corporate governance.	Nigeria
Karaka & Savsar, 2012	Financial ratios & companies distress	Examined the effect of financial ratios on firm value	Panel OLS analysis	Mixed result was revealed	Turkey

Source: Own research, 2019

Table 2.7: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	locations
Tuvadaratra gool, 2013	Financial ratios & distress of companies	Examined whether ratios can signal corporate failure.	Integrated multiple measure (IMM) comparative ratio & trend analysis.	Result revealed that ratios can be used to signal corporate failure as it is used to signal goodwill to the public	Thailand

Bello, 2014	Accounting ratios & firm value	Examined the effect of accounting ratios on firm value	Multiple OLS analysis	Accounting ratios are significant to firm value.	Malaysia
Asiri & Hamed, 2014	Financial ratios & firm value	Measured how financial ratios explained firm value	(Tobin's Q) Pooled OLS & cross sectional time series analysis	Found that ROA is an important determinant variable that explain firm value as it greatly explain market value.	Bahrain
Rajhans & Kawalpreet, 2013	Determinant of firm value	Investigates different determinants of firm value	Pool regression analysis	Capital structure does not influence firm value but WACC does impact firm value	India
Liang et al, 2016	Financial ratios & corp. gov. as indicator of bankruptcy	Assessed the performance of companies using ratios corp. gov. to predict bankruptcy	Corporate governance Index prediction model.	Found that it may not be applicable to all market but ratios and corp. gov. is a good measure of bankruptcy.	Thailand
Bafana, 2016	Firm size, leverage & liquidity	Investigated the effect of leverage liquidity on firm size	Pooled OLS regression analysis	Mixed result was found	Kenya
Abdoli & Zadeh, 2015	Liquidity, corp. gov. & firm value.	Evaluated liquidity, corp. gov. variables to measure firm value.	Multivariate linear regression	A positive and significant result was revealed between liquidity, outside board & firm value	Tehran

Source: Own research, 2019

Table 2.8: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	locations
Lakshan & Wijekoon, 2012	Predicting corporate failure	Examined the influence of corp. gov. characteristics on corporate failure & developed a model to	Logistic regression analysis	Revealed that corp. gov. model improve prediction Predictive accuracy revealed 73% signal a year before failure	Sri Lanka

		predict corporate failure			
Antwi et al, 2012	Capital structure & firm value	Provided evidence on the impact of capital structure on firm value	OLS analysis	Revealed that equity is relevant to firm value.	Ghana
Rezaei & Jahilmehr, 2012	Corp. gov. and accounting outcomes	Investigated the effect of corp. gov. on accounting outcomes.	OLS analysis	Revealed that corp. gov. is significantly related to future performance of firm and outcomes of accounting data	
Enekwe, 2015	Ratio analysis & corporate profitability.	Examined the effect of financial ratios on corporate profitability.	Descriptive analysis, Pearson correlation & regression analysis.	Mixed result was found	Nigeria
Tsegba et al, 2017	Firm characteristics & compliance with IFRS	Investigated the level of compliance of Nigeria listed companies with IFRS.	Multiple regression analysis	Found high rate of compliance with IFRS	Nigeria
Demaki, 2011	Sectional codes of corporate governance	Investigated on the disparities arising from sectionalizing of codes of corporate gov.	Survey method	Revealed negative effect on the economy and recommended harmonization.	Nigeria
Kurawa & Kabara, 2014	Corp. gov. and Voluntary disclosure	Examined the impact of corp. gov. on voluntary disclosure of firms in Nigeria	Descriptive and OLS analysis	Mixed result was revealed.	Nigeria

Source: Own research, 2019

Table 2.9: Summary of Empirical Literature (Continued)

Authors	Research focus	Objective(s)	Methodology	Findings	locations
Oluwagbemiga, 2014	Voluntary disclosure & financial statement	Established the use of voluntary disclosure in determining the	Survey method and descriptive analysis	Revealed voluntary disclosure of information improved	Nigeria

		quality of financial statement.		the quality of financial statement.	
Ejwbekpokpo & Esuike, 2013	Corp. gov. code and its implementation	Examined operational environment of corp. gov. and the need to enforce compliance.	Survey method	Revealed that firm's operational environment is important and recommended enforcement.	Nigeria
Adesina et al, 2015	Corp. gov. and accounting information	Assessed the relationship between corp. gov., accounting information & disclosure in Nigeria	Survey method	Revealed a variation in the way information is being perceived.	Nigeria
Marai et al, 2016	Effectiveness of internal corp. gov. mechanisms	Shed light on Effectiveness of corp. gov. code	Empirical review	Revealed weak enforcement and mixed result	Saudi Arabia
Amori & Oyeleye, 2017	Corp. gov. and compliance.	Examined the level of compliance of Nigeria firms to corp. gov. code	Multinomial linear regression analysis	Corp. gov. enhanced timely disclosure of financial information to stakeholders and also enhance firm performance.	Nigeria
Tosun, 2013	Corp. gov. and financial performance.	Investigated corp. gov. practices & firm performance.	Panel data analysis	Positive relationship occurred between firm, institution and corporate gov.	USA
Alalade et al, 2014	Corp. gov. and financial performance	Examined corp. gov. and financial performance in Nigeria. Also tested firm's level of compliance to 2003 code.	Panel OLS analysis and comparative analysis.	Mixed result was revealed	Nigeria

Source: Own research, 2019

2.6.11 Summary of Gaps from the Literature Review

This chapter reviewed related literature on Corporate Governance and Firm Value, Accounting Ratios and Firm Value from prior studies. As indicated in Tables 2.2 to 2.9, the researcher has been able to establish that there are growing theoretical and empirical studies on Corporate Governance and Firm Value. It also revealed that more work still needs to be carried out on

Accounting Ratios and Firm Value. Further findings revealed that, in Nigeria, there is no study linking accounting ratios with firm value or firm performance, based on the extent of the research findings. Even in the world at large, there have been very few studies on Accounting Ratios and Firm Value. These were part of the gaps that this study filled. This takes the study to Chapter Three, which is basically a definition of various concepts.

CHAPTER 3: REVIEW OF CONCEPTUAL LITERATURE

3.1 Introduction

In the previous chapter, the study dealt with various theories and their links to how companies govern to maximize their value. The chapter as well reviewed prior studies where gap and the originality of this study was discovered. This chapter reviews general concepts of corporate governance, concepts of accounting ratios and the concepts of firm value as well as how these concepts interact with one another. The purpose of this chapter is to provide an understanding of some key concepts which support the achievement of the research objective and solve the stated problem. To recall, the main objective of this study is to develop a model that will indicate the effect of corporate governance initiatives on accounting ratios and company value. In this chapter, the concepts of corporate governance, accounting ratios and firm value were examined.

3.2 Concepts on corporate governance

3.2.1 Definition of corporate governance

The root of the term "governance" is from the Latin words "gubarnare" and "gubernator", which refer to "steering a ship" and to the "steerer or captain of the ship" respectively. Here, corporate governance is seen as the driver of any company through the management.

"Corporate governance is a set of coordinated rules and regulations that influence how companies should be operated and managed which involves interactions amongst company's management, its board, its shareholders and other major stakeholders". Corporate Governance (CG), according to Hassan and Halbouni (2013:120), is the "relationship between the management, providers of capital and other stakeholders who might have invested for a return on investment". It consists of monitoring, controlling, supervising and being accountable to different stakeholders. It is a topic that is very wide and which can be viewed or approached from different perspectives by different individuals. It depends on the angle from which one looks at it. For instance, it can be viewed from director's duties, avoidance of fraud, performance of the firm, the role of external auditor and the need for further legislation, etc. This is why it is simply defined as the way a company is governed. Corporate Governance is about promoting fairness, transparency and accountability in the running of an organization.

However, other reasons which make corporate governance difficult to be identified with one definition are differences in legal frameworks, cultures and beliefs, historical development and the political and technological environment of different countries. Corporate governance is new in some disciplines and old in others as compared to other disciplines like law, economics, accountancy and management. This study therefore concludes that whichever way corporate governance is viewed and defined, it can be summarized into two, following the work of Armstrong (2005:15), Solomon (2010:591) and Olayiwola (2010:178). These authors viewed and summarized the definition of corporate governance into two perspectives, the 'narrow view' and the 'broad view', depending on the view of the practitioner, researchers, policy-makers or decision makers and theorists. The narrow view aims to maximize and protect the shareholder's wealth. This is in support of the view of the shareholder's wealth maximization theorists. The "broad view" states that a firm is not only responsible for shareholders, but also other stakeholders who might be affected by the activities of the firm. It further stated that firms should not only be managed and directed to maximize shareholder's wealth alone, but all stakeholders as a whole (Maher and Anderson 2000:6). Following the two points of view, a few definitions given in this study are reviewed and classified under the two points of view as follows:

From the narrow point of view, the following definitions are reviewed out of numerous ones: Shleifer and Vishny (1997:746) defined corporate governance as the ''ways in which owners of the business assure themselves of returns on their investment''. The Cadbury Committee defined ''corporate governance as the system by which companies are directed and controlled'' (Cadbury, 1992:5). South Africa's King Code IV defines corporate governance "as the exercise of ethical and effective leadership by a governing body towards the achievement of the following governance outcomes: ethical culture; good performance; effective control and legitimacy" (King Code IV 2017). The Australian Standard, 2003, defined corporate governance "as the process by which an organization is directed, controlled and held to account". Stemberg (2004:28) viewed it "as ways of ensuring that corporate actions, agents and assets are directed at achieving the corporate objective established by the corporation's shareholders". These definitions are consistent with the view of some researchers who argue that the main obligation of a company is towards maximizing the wealth of its shareholders (Stemberg, 2004:26, Sundaram and Inkpen, 2004:355). This view is consistent with the ''conventional finance model'', which is supported by Agency theory and the Shareholders' wealth-maximization model.

However, according to the broad or wide view, it is that a firm has obligations not only to its shareholders, but also to all other stakeholders. Various authors who have written in line with this view are also reviewed below:

Morin and Jarrell (2001:1) argued that " governance is a way of controlling and safeguarding the interests of all stakeholders such as managers, employees, customers, shareholders, executive management, suppliers and the board of directors,'' etc. Freeman and Reed (1983:88) and West (2006:433) describe ''corporate governance as managing business affairs to create shareholder value and protect the interest of other stakeholders''. Solomon (2010) defines ''corporate governance as the system of checks and balances, both internal and external to companies, which ensure that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activity''. ''Corporate governance is the set of processes, customs, policies, laws and institutions affecting the way a corporation (company) is directed, administered or controlled. Corporate governance also includes the relationships amongst the many stakeholders involved and the goals for which the corporation is governed''. Adebayo, Ibrahim, Yusuf and Omah (2014:171) and Okene (2010:1) stated that ''corporate governance is a system by which corporations are governed and controlled, with a view to increasing shareholders' value and meeting the expectations of other stakeholders''. Lemo (2010:1) states that ''corporate governance is the body of rules of the game by which companies are managed and supervised by the board of directors in order to protect the interests and financial stakes of shareholders who are far removed from the management of the firm''. Mensah (2003:5) states that ''corporate governance is an institutional arrangement that provides the discipline to check over the excesses of controlling managers''.

Mahboob Uddin (2006:17) divided stakeholders into principal stakeholders and other stakeholders. Principal/internal stakeholders are shareholders, management and the board of directors, while other/external stakeholders include employees, customers, creditors, suppliers, regulators and the community at large. Literature on corporate governance revealed that the roles of a regulatory authority, board, management, suppliers, customers and creditors are important in improving the value of the firm. Good corporate governance is focused on the protection of the rights of shareholders and plays an important role in the development of capital markets by protecting their interests (Abdurrouf, Siddique and Rahaman 2010:790).

This research therefore adopts the definition used by the OECD Principles (2004) because it is comprehensive and covers the whole framework of corporate governance. The definition states that managers do not only have relationships between shareholders, management and the board, but also having responsibilities towards all other stakeholders by controlling and directing them. Therefore, this stakeholder perspective, which is advocated by the OECD Principles of Corporate Governance, was examined in this research and it also in line with stakeholder theory. The study believed that shareholders are the main stakeholders that need special attention but at the same time other stakeholders should form part of the any company's plans and decisions.

3.2.2 Historical Background of International Corporate Governance – Recent issues

There is a need to review the development of corporate governance codes in Nigeria, its functions and also to examine the extent to which it conforms to international best practices. The global corporate scandals were an eye-opener to the regulatory bodies around the world to enact more robust and comprehensive rules and codes that ensure transparency, adequate disclosure, accountability, good governance and compliance with the regulation of corporate organizations. Corporate governance has been growing in stature for years, mostly in response to corporate failures and other related issues or crises. The history can be traced according to past failure documentation as far back as the South Sea bubble in the 1700s, which revolutionized the laws and practices of business in England. This was followed by the 1929 stock market crash and the 1970s banking crisis in Russia and in Asia. This led to a currency crisis, corporate mismanagement, weak financial market and stock markets and abuses of professional accounting bodies.

Evidence obtained from the Enron case in the US in 2002 led to the global financial meltdown of 2008. This began in 2008 with the crash of the US mortgage industry and later affected other parts of the world, especially those countries whose economic activities are directly linked with the USA. The implication of these crises was the enactment of new regulatory policies and other laws, especially in the Accounting profession. The Sarbanes-Oxley law was enacted to make some adjustments in the US corporate governance code, especially in the area of audit committees and the rotation of auditors. This also led to the restructuring of various countries' corporate governance codes, as well as the setting up of boards for financial stability in 2009 by the International Ministers' forum and the governors of central banks by G-20 countries to ensure a convergence of standards and other financial reforms. The rotation of auditors, transparency and

accountability were also made mandatory by the International Forum of Independent Audit Regulators.

In Nigeria, regulatory changes were enormous, which gave birth to the issuance and modifications of different Codes by major regulators, including: The Code of Corporate Governance for Public Companies, 2003 which was later re-modified in 2008, issued by the Securities and Exchange Commission (SEC). Although majority of these bodies had been in existence before Enron case incident, it was modified after the incident. The Code of Corporate Governance for Banks Post Consolidation, 2006, issued by the Central Bank of Nigeria (CBN); the Code of Corporate Governance for Licensed Pension Operators, 2008, issued by the Pension Commission (PENCOM); the Code of Good Corporate Governance for the Insurance Industry, 2009, issued by the National Insurance Commission, NAICOM; the enactment of FRC Act 3, which amongst others, created the FRC; the Code of Corporate Governance for Public Companies, 2011, issued by the SEC and its recent amendment in 2014; and the Code of Corporate Governance for Banks and Discount Houses in Nigeria and the Guidelines for Whistle-Blowing in the Nigerian Banking Industry, 2014. To harmonize the sectoral code of corporate governance in Nigeria, an exposure draft was released by the FRC for public hearing and to raise comments for the FRC to regulate and harmonize. The main aim of these regulations is to ensure equal standards of operation, transparency, accountability and disclosure in the running of the affairs of companies, which will in turn guarantee investor confidence, the protection of shareholders' investments and the flow of both local and foreign capital. These sectoral codes were harmonized, were passed into law and became national codes of corporate governance of Nigeria in 2016.

3.2.3 Framework for Corporate Governance in Nigeria

There are legal frameworks in charge of corporate governance in Nigeria but primarily governed by ISA Act No. 29 of 2007, the SEC, the CAMA 1990 and the Trustees Investments Act 2004. The new 2016 national code was established by the SEC through the committee saddled with the responsibility. Governance in Nigeria was initially the 2003 code of governance and its compliance was voluntary. However, compliance to the new national code has been made mandatory (National code of corporate governance, 2016).

3.2.4 The development of corporate governance in Nigeria.

The advent of a democratic government in 1999 led by President Obasanjo lead to the introduction of economic reforms such as the National Economic Empowerment and Development Strategy (NEEDS), the introduction of vision 20:2020 as a broader perspective from which the Millennium Development Goal (MGD) as the main strategic goal was fashioned as a strategy under which Nigeria aspires to be amongst the top 20 most-developed economies internationally by 2020.

Among the first steps taken was to address Nigeria's corporate governance framework and statutory frameworks like CAMA, CAC, CBN, BOFIA, ISA (Investment and Security Act of 1991) and the introduction of other acts like the Corrupt Practices and Other Related Offences Act which was promulgated in 2000. The Security and Exchange Commission (SEC) established a committee on corporate governance of public companies in Nigeria in 2003, with a view to strengthening Nigeria's corporate governance framework and aligning it with international standards and practices.

This led to the issuance of Nigeria's first corporate governance code called the Code of Best Practices 2003. The code was drawn from OECD principles of corporate governance, the King Report of South Africa, and corporate governance standards of the UK and USA. To build on this also led to the issuance of multiple codes of corporate governance like the Code of Governance for Banks (CBN, BOFIA) after crises of bank distress which brought about a consolidation program led by Soludo (2006:1); Code for Insurance Companies in 2007; and then Code for Licensed Pension Operators in 2008. Reports from the African peer review mechanism (APRM) in 2008 observed a significant corporate governance weaknesses and challenges in the Nigeria's corporate environment and made recommendations for harmonization of the codes for better governance in Nigeria.

3.2.5 Brief description of Nigeria

Nigeria is one of Africa's most populous nation with about 200 million people and comprises of three main ethnic group (Yoruba, Igbo and Hausa) and several other minor ones. It is located in the western part of the continent. Nigeria surpassed South Africa as the largest economy in the Africa in 2014, 2019 and 30th largest economy in the world. Nigeria is also the largest oil and gas producer which account for 11% of its GDP. Its economy is heavily dependent on oil export with

90% of export earnings and 70% of government revenues. Nigeria experienced shock in the oil price in 2014 which created a significant economic challenge for Nigeria naira which declined greatly against the US dollar. This led to recession in 2015 to 2018. Before the advent of oil, it used to be agriculture that controlled the economy but now oil and gas has taken over which is presently causing food shortage in the country. After oil comes Agriculture because the sector sustains over 80% of rural household and Nigeria is also the largest producer of gas reserves. According to Africa corporate governance network (ACGN) (2016) presently Nigeria is consistently on the average 7% GDP.

3.2.6 Highlights of the 2016 National Code of Corporate Governance

The arrival of the new national code further reviewed and strengthened the existing 2003 code by incorporating and unifying other sectionalized corporate governance codes in Nigeria. This was in response to the directive given on 17th January, 2013 to the steering committee on corporate governance by the Minister of Trade and Investment chaired by Mr Victor Odiase. The function of the committee was to unify and harmonize all the sectional codes of governance in Nigeria. The identified unified codes at the commencement stage that were available are: the code of governance on Banks 2006, on Pension Operators 2008, on the Insurance Industry 2009, on CBN 2011, Banks and Discount Houses 2014. This multiplicity of Codes became conflicting and very confusing in dealing with the same subject matter. Hence, the need for harmonization and unification became paramount to every sector. This new Code therefore aims at promoting both shareholders and other stakeholders thereby promoting, Transparency, accountability, common provisions, adequate disclosure, transparency, financial reporting integrity. This is because these had been justified and appeared to be generally agreed multiple codes brought about by weak corporate governance. It was a major challenge to good corporate governance practices in the Nigerian environment. Also, it has been significantly responsible for recent global corporate failures, including those witnessed in Nigeria. The code also provided a minimum standard for corporate governance in Nigeria, with mandatory compliance.

3.2.6.1 Board Structure and Composition

The 2016 National Code of Corporate Governance emphasizes the purpose, structure and composition of the Board. The main purpose of the board is to be a resource to the organization and provide entrepreneurial, strategic and ethical and good leadership to a company, ensure that

other management teams are acting in the best interest of owners and other stakeholders through the board's advisory and monitoring roles, and in the process enhance and sustain company value over time. The Board of directors is a resource to the organization and is responsible for the affairs of the company in a lawful and efficient manner. Thereby, it ensures the following functions: accountability, remuneration, strategic planning, selection, performance appraisal, information technology governance, internal control, risk management, succession planning, meeting the obligation to shareholders by ensuring the integrity of financial controls and reports, ensuring that ethical standards are maintained and that the company complies with the laws and regulations of Nigeria.

The composition must take into consideration diversity of experience without compromising accountability, competency, transparency, compatibility, integrity, quality reporting, adequate disclosures and independence. The Board should comprise a mix of one-third executive directors, two-thirds Non-Executive Directors and independent non-executive directors should be more than half of the two-thirds, headed by a Chairman from the independent non-executive directors and not to exceed 15 persons or be less than 8 persons in total, and 5 persons for a regulated private company. Furthermore, the position of the Chairman and Chief Executive Officer should be separated and held by different persons. The code stated clearly that the position of the Chairman and Chief Executive Officer should not be combined. Various studies by Yermack (1996:185) and Kajola (2008:16) found that firms are more efficient with the separation of offices of board chair and CEO.

3.2.6.2 **Executive Director Compensation**

The importance of board of directors in an organization cannot be undermined. They are the heartbeat of every organization. Without them, companies crash. To function well, companies must motivate them with a standard and well-structured remuneration package. Various studies, such as Newman's (2000:602) and Brennan and Solomon's (2008:885), have written on directors' remunerations and how it improves directors' effectiveness and later leads to an improvement of firm value or firm performance. Many methods have also been introduced to motivate managing directors such as performance-related payment structures, stock-related payment, etc. It should be noted that the code emphasized that executive directors are not expected to be part of remuneration committee for better checks and balances. The code therefore, emphasis on the need for remuneration committee that would be able to carry out this function. Moreover, the disclosure of

directors' remuneration, total emoluments and that of the Chairman and highest paid director with other relevant information about stock options and any pension contributions are duly emphasized. All these must be disclosed in the annual report.

3.2.6.3 **Accountability, Disclosure and Financial Transparency**

It was clearly stated and emphasized in the code that a company's managing directors should promote transparency in their day to day running of the business and reporting. It is the duty of the board of directors to be accountable and present a reasonable and true and fair view of the company's state of affairs. It is also the responsibility of the company to ensure good and standard internal control system. The board should also ensure they only maintain professional relationship with the external auditor and as well ensure they are not involved in the preparation of the financial statement of the company. Directors should report on the effectiveness of internal control and the company's state of going concern, with the rate of compliance with the Companies and Allied Matters Act on Shareholders' Rights and Privileges.

It is the duty of the directors and other members of the management team to ensure that the statutory rights of shareholders are protected at all times. Proposed resolutions should be made at the annual general meeting that all shareholders can vote and be voted for and that no shareholder should be given preferential treatment or given special access to information. Shareholders therefore should be responsible for electing and approving directors' terms and the conditions of their directorships. General meetings should be used to communicate with all shareholders and the participation of shareholders holding more than 20% of issued share capital should be encouraged, by at least having a representative on the board. At least one director from the board should represent the interest of minority shareholders for the sake of transparency. Above all, companies are mandated to strive to achieve international best practices (OECD, 2000) and therefore engage in the full disclosure of all the matters set out in this Code.

3.2.6.4 **New issues in the 2016 Code which must be disclosed in the company's annual reports.**

The following are other issues that must also be disclosed in the annual reports of listed companies in Nigeria as directed by the new code.

(i) Performance Evaluation

The national code emphasized the need to evaluate board performance, its committees, individual directors and the chairman. The results of the performance evaluation must be disclosed in the

annual report on a named basis. This is really important because, this necessary measure can be taken for company continuity.

(ii) Risk Management

Part of the purpose of boards of directors of any organization through governance is to manage risk. The code emphasized and clearly directed that a Risk management framework should be integrated into daily operations of the business. There should be a provision of guidelines and standards for management on how to manage key risk areas and ensure that the company's risk management policies and practices are disclosed in the annual report.

(iii) Going Concern

The code also directs the directors in the annual report or integrated report to state whether or not the going concern of the organization is threatened. This should be done annually or half-yearly in the financial statements, with supporting assumptions or qualifications if necessary. Directors should always see to company continuity.

(iv) Internal Audit Function

Companies in Nigeria are mandated to put in place an effective risk–based internal audit and culture. Sufficient reasons must be disclosed in the company's annual reports for not being able to establish this, with an explanation of how a company's internal control assurance is obtained in terms of risk management.

(v) Whistle-blowing

An effective whistle-blowing policy must be implemented by the board. The board must establish a mechanism for disclosing and reporting any illegal or unethical behavior, with or without the knowledge or involvement of the company's external auditors.

(vi) Board and shareholders' interaction

The steps the board has taken in order to understand all the views of all shareholders should be disclosed in the annual report, especially the independent non-executive directors.

(vii) Annual General Meeting and Board meetings

The Annual General Meeting is very important because that is where decision and resolutions are made. It is also a medium through which the effective communication and participation of shareholders in meetings are encouraged. On the other hand, in order for the board to effectively perform its oversight function and monitor management performance, every director is required to

attend at least two-thirds of all board meetings, which must be held at least once in every quarter of the year. Such attendance shall be one of criteria for their re-nomination and a useful tool for their performance during their evaluation.

(viii) Protection of Shareholder Rights

It is the duty of the board to ensure that rights (statutory and general) are always protected and are treated fairly and that all shareholders are treated equally. They also have the right to notice of the meeting at least 21 days before the date of the meeting.

(ix) Institutional Investors

Shareholders have an active role to play in ensuring good corporate governance is in place. This is done by always assessing and guiding the standard of corporate governance of the companies in which they invest. They should demand compliance with the provisions of this Code and report to the regulator whenever they observe non-compliance with any part of this Code.

(x) Insider Trading

The code opposes all forms of insider trading because it reduces the level of trust and confidence that investor repose on the company, especially on the fairness and integrity of the securities market. Therefore, companies should not in any way be involved in any form of insider dealing in their buying and selling and when their securities are being traded.

(xi) Related Party Transactions and corporate governance

All forms of transactions involving related parties like families, cousins and friends or corporate bodies, whether transacted within arm's length or not, should be disclosed in the annual report.

(xii) Conflicts of interest and governance

Directors should disclose any form of conflict of interest, either potential or perceived, in the annual report and it should be recorded in the minutes of the meetings.

(xiii)Transparency and Disclosures and corporate governance

The code also instructed companies to strive to attain international best practices by ensuring the full disclosure of all the matters raised in the Code.

(xiv) Corporate Governance Evaluation

Every company is expected to carry out an annual corporate governance evaluation. This is done by a registered independent external consultant who is meant for this purpose, and not a company's external auditor or related party. The evaluation report is expected to be presented at the company's

annual general meeting, with a copy to the consultant, and be made accessible to all members through the investors' portal of the company.

(xv) Code of Business Conduct and Ethics and corporate governance

Every company would have a Code of Business Conduct and Ethics which should form part of the company's culture and be regarded as part of the corporate governance practices of the company.

(xvi) Enforcement, Sanction, Transition arrangements and Commencement and governance

The code mandated the compliance with the provisions of this Code, unlike the 2003 best practice which is voluntary. Any form of violation with this code attract severe sanction both personal and company involved. FRC is responsible for the enforcement of the code and is effective from 17th October 2016. Every entity is expected to apply this Code in its annual reports for the periods beginning on or after 17th October 2016. It should be disclosed in the annual report if any company applies this code before 17th October 2016.

Table 3-1: Governance Variables and their Key functions in the 2016 Code of Corporate Governance

Governance Variable	Key Themes
Board independence	For board to really maintain their independence and to maintain a balance of power, the independent non-executive directors must be a majority and be greater than 50% The independent non-executive directors should be independent in mind and in appearance. The serving period of directors should not be longer than 9 years Independence of non-executive directors: they should not be allowed to hold more than 5% of the total share of the company, both holdings and its subsidiary in case of consolidated groups
CEO-Chairman duality	The code emphasizes separate offices for the CEO and Chairman.
Staggered boards	1/3 of non-executive directors should retire by rotation on an annual basis and board the Chairman should rotate every 5years to allow for the adequate rotation of board members.
Board size	A range of between 6 to 12 directors, inclusive of executive directors seems an adequate board size.
Board remuneration committee	For objectivity and transparency, the code mandates the formulation of a board remuneration committee.
Board remuneration composition	The board remuneration committee should comprise of non-executive directors which should be majorly independent and not by any means chaired by the board chairman.

Source: 2016 Code of Corporate Governance

3.2.6.5 **Conclusion**

The study is of the opinion, from the review of 2016 Code of Corporate Governance, that if managers strictly adhere to rules, company laws and the code of governance, corporate failure will become a thing of the past. It depends on the approach decision-makers take towards the code, but any functional code of corporate governance should comprise duties and functions of directors, avoidance of fraud, firm performance, role of external auditor, functions of committees, need for

further legislation, ethical culture, effective control and legitimacy as was suggested by King's Code IV (2017) and cited by Roberts (2017:10), with little modification.

3.2.7 Corporate Governance and Corporate Social Responsibility (CSR)

One of the corporate governance requirements in the annual report is to give reports on their level of performance in terms of corporate social responsibility. Social responsibility is simply the responsibilities of companies to their immediate environment. CSR, according to ISO 26000, is the impact of a company's activities on their environment, which is to be justified through quality reporting, ethical behavior, transparency and accountability for sustainable development and the health and welfare of society, taking into consideration and reaction to, compliance with both international norms and local laws. Corporate social responsibility must be expressed in the extent of Sustainability Reporting.

3.2.8 The flow from traditional agency problem to recent Agency issues such as Accountability, Transparency, going concern and whistle blowing

Companies of old faced many Agency problems between the owners of the business and the directors. Recently, issues such as Accountability, Transparency, going concern and whistle blowing have reduced the problem to the barest minimum. The Board of directors of an organization is expected to implement an effective whistle-blowing policy, which provides a mechanism for disclosing and reporting illegal and unethical behavior amongst employees, with or without company's external auditor. The directors must be transparent and accountable for a company's annual or integrated report. The Going concern of companies must be of paramount importance to any company director. It is mandated by the code of corporate governance to report whether the going concern of company is threatened or not. Recent issues such as level of transparency, accountability, sustainability, prompt reporting of the company's going concern and an effective whistle-blowing policy have helped to reduce the agency problem. This in turn leads to the protection of shareholder's rights and the sustainability of value and of the economy as a whole.

3.2.9 Corporate Governance Mechanisms

Governance mechanisms are the methods and procedures used by companies to solve corporate governance problems. This includes monitoring the actions, policies, practices, and decisions of corporations and stakeholders. However, the mechanisms adopted by each company depends on the system adopted by such company. Fan, Lan and Wu's (2002:211) work addressed both internal and external mechanisms but here emphasis is laid on internal mechanisms. This is because internal mechanisms are structural components that solve principal-agent problem (Otman, 2014:75; Kiel and Nicholson, 2003:399). Below are various internal corporate governance mechanisms that work together to produces good corporate governance.

3.2.9.1 **Managerial group- Board size**

One of corporate governance mechanism that ensures good governance is the size of the board of directors. From prior studies on board size and corporate governance, the general result is mixed. This can be established from the results of Jia and Chen (2007:1), which showed a summary table of positives and negatives. Some researchers that are of the opinion and argue that large boards are better in terms of improving firm value and performance because they have a wider range of expertise to help make better decisions. Moreover, it is difficult for CEOs to dominate them. Results of the study by Kyereboah-Coleman (2007:350) rather support large boards size because it enhances shareholders' wealth more than smaller ones.

However, some authors such as Jensen (1993:831); Yermark (1996:185); Wu (2004:199); and Guest (2009:386) argued that large boards are less effective because of decision-making processes would be slow compared to small boards. However, some argued that smaller boards increase the accountability and transparency of individual directors. From the argument above, there is a possibility of positive or negative relationships between board size and firm value. For instance, while Yermack (1996:185) had found that Tobin's Q declines with board size and this finding was corroborated by Rouf (2011:73). The likes of Hussein and Venkatram (2013:358); Mak and Kusnadi (2005:301) and Sanda, Mikailu and Garba (2005:22) revealed that small boards were more positively associated with high firm performance.

3.2.9.2 **Managerial Group- CEO Duality**

The combination of the role of CEO and that of chairman of a company is called CEO duality. Agency Theory advocates against this type of corporate governance mechanism because of the need to separate ownership from control. Agency Theory therefore advocates the separation of the roles of CEO from the chairman as a key monitoring mechanism. The advocators argue that two heads are always better than one for synergistic purposes. However, the results from the literature are mixed. According to Yermack (1996:185), he found out that separation of office between chairman and CEO has a positive relationship and is statistically significant with firm value or firm performance. Kajola (2008:16) corroborated the findings from Yermack. However, Kyereboah-Coleman (2007:350) also found out that duality of the two offices negatively affect firm performance. He found out that if different persons occupy the offices it would improve firm value. Donaldson and Davis (1991:49) challenged separation of offices by argued that the shareholder's returns are maximized if there is duality of office of CEO because there is a reduction in agency cost and costs of capital. Therefore, the general result here is also mixed according to Jia and Chen's (2007:5) from their results summary table.

3.2.9.3 **Managerial group and Executive Compensation**

Shareholders need to develop a monitoring system to align the board's action towards the organization's objective and goals with the interest of the shareholders. One of the monitoring methods is the use of pay practices that better align with the interests of shareholders and management. This is because managers may take the advantage of access to the company's information and other privileges to pursue their personal interests, including excessive compensation. This is the reason for a national code of corporate governance especially treating executive compensation by having a special committee in charge of directors' total emolument. This was earlier explained in the code under executive director's compensation. However, various literature with regard to directors' remuneration and corporate governance are: Bauer et al. (2008:236) asserted that well remunerated directors have a positive correlation with improved corporate governance moreover that amounts available for distribution to shareholders are directly related to directors' remuneration. Furthermore, a board remuneration committee as a mechanism has also proven by many authors that the committee improves board effectiveness (Main and Johnston, 1993:351; Newman and Mozes, 1999:41; Newman, 2000:602 and Brennan and

Solomon, 2008:885). In a further study carried out by Reddy, Locke and Scrimgeour (2010:190) it was found that the presence of a remuneration committee had a positive effect on company performance. The results of these studies indicate a need to align executive compensation policy with overall company performance and overall company goals. Jia and Chen (2007:1) asserted that the general result is mostly positive that executive compensation is closely and positively related to firm performance and inversely related to firm value, especially as directors' remuneration increases.

3.2.9.4 **Compensation and Agency Problem**

One of the main agency problems that causes a conflict of interest between shareholders and managers is Agency Cost, which can also be linked to directors' total emoluments. There is always a risk that shareholders gain less than if the owner of the business takes up the operations of the business themselves. Darmadi (2011:1) and Aggarwal and Samwick (2006:489) stated that managers would always want to be adequately, bountifully remunerated and if possible, increase their compensation every year, while shareholders would want yearly increases in profit, returns on their investment, reductions in agency cost and increases in firm value. Other examples of conflicts of interest that usually occur when managers are trying to engage in activities for their own benefit, rather than the benefit of the firm's shareholders (Jensen and Meckling, 1976:308). Agency Theory predicts conflicts of interests between shareholders and managers and it aims to proffer solutions to the problem (Jensen and Meckling 1976:305). The main priority of any company is to therefore seek to reduce the agency problem to the barest minimum. To achieve this, sound and effective remuneration structures must be put into in place (Bebchuk and Fried, 2003:71). Nyaoga, Kefah and Erick (2014:113) stated that an effective remuneration structure adds value to the firm by improving the alignment of management incentives with stockholder interest. Since the objective of a corporation's shareholders is to maximize wealth, the agency problem must be well managed in order not to jeopardize the overall company's objective, which is shareholder wealth (Jensen and Murphy, 1990:255; Nyaoga, Kefah and Erick, 2014:113).The remuneration structure of the company was viewed by Bebchuk and Fried (2003:71) as an instrument to control agency problem.

3.2.9.5 **How the agency problem can be mitigated**

The Agency problem is the conflicts of interest that usually arise between the business owners and the managers (Duhnfort, Klein and Lampenius, 2008:424). Bebchuk and Fried (2003:71) asserted that this problem is difficult to completely eradicated and every company should rather always seek after how it can be controlled to the barest minimum. Several ways have been discovered in the literature, but for the purpose of this study, it is limited and summarized as follows: Agency problem can be mitigated when companies have good and effective remuneration plans, as well as other incentives that make the up total emoluments of directors. One way is when a firm's directors are compensated entirely using the stock price. This makes agency costs very low and thereby increases shareholder's wealth. It would be difficult to hire and retain talented managers under these contractual terms. Another way is when the remuneration of the directors is attached to their performance (Fama, 1980:288). This is called performance-related pay. Another way in which the agency problem can be mitigated is to allow directors to get part shares of the company in exchange for their compensation. It could be through a bonus issue as an incentive to their performance. Nyaoga, Kefah and Erick (2014:113) stated that when the directors are compensated with stock, it gives them a sense of belonging to the company and not as mere company employees and automatically reduces the rivalry between the shareholders and the manager. Lastly, another way is for shareholders to monitor every managerial action. The disadvantage here is that this would be too costly and inefficient. The best solution is tying executive compensation to performance with little monitoring (Fama, 1980:288).

3.2.9.6 **Compensation and Corporate Governance**

Recall that corporate governance was earlier defined as simply the ways and manner in which companies are directed and controlled by those saddled with the responsibility, which is usually directors. Directors are the agents of the company. Therefore, they need to be well compensated for managing the company on behalf of the shareholders. Mal-remunerated directors would never be committed to the company. Good Remuneration plans are seen as part of the corporate governance of any company as specified by the code. Sigler (2011:17) posited that undue influence from Chief executive officers can significantly influence the committee that sets the compensation. To mitigate this problem, the 2016 National Code of Corporate Governance mandated every company to have a Remuneration Committee which should be mainly non-executive directors with

independent non-executive directors making up more than 50% of the composition. The remuneration policy should not be such that it would unduly restrict or reduce a company's ability to attract and retain skilled and talented labor. Rather, it should promote and align remuneration policies with the company's objective and goal to avoid excessive risk-taking, thereby promoting sound governance. However, if remuneration total emoluments include rich and juicy incentives, it attracts skilled and talented labor that improves corporate governance **(**Bebchuk and Fried, 2005:72). When corporate governance is weak, the first thing to consider is the composition of their own compensation because directors' compensation is directly correlated with the quality of governance in place. If there is weak corporate governance, it has a negative effect on firm value by increasing the cost of capital. Moreover, directors' compensation and firm value are inversely correlated. Prior studies, such as Bauer, Frijns, Otten and Tourani-Rad (2008:236), have proven that directors' compensation or remuneration is a function of performance and it is directly and inversely correlated with firm value and firm performance.

3.2.9.7 **Board Diversity**

This mechanism promotes balance of gender, ethnic and cultural background. The advantages here as argued by Yermack (1996:185) are that balanced board diversity increase board independence because people with diverse diversity might ask questions that would always put directors on their toes, or be more activist. This may result in either being more effective in discharging their fiduciary duties, transparency and accountability or the board members with different characteristics who are small may lead to marginalization. Hence, prior studies by Jia and Chen (2007:5) affirmed a positive or negative relationship between board diversity and firm value, while Rao and Desta (2016:551) found no significant influence between board gender diversity and firm performance.

3.2.9.8 **Independence non-Executive Directors Percentage**

The Board of Directors of any given organization is divided into two groups: executive directors and non-executive directors (NEDS) and independent NED (Adams, Hermalin and Weisbach, 2009:136). The 2016 National Code of Corporate Governance of Nigeria made it compulsory that the number of NEDs be more than the executive directors in any given listed company of Nigeria. It also emphasized diversity of experience, without compromising accountability, competency, transparency, compatibility, integrity, quality reporting, adequate disclosures and independence.

The Board should comprise of a mix of one-thirds executive directors, two-third NEDs and independent NEDs should be more than half of the two third headed by a Chairman from the independent NEDs and not to exceed 15 persons or be less than 8 persons in total and 5 persons for a regulated private company. Prior studies on this are mixed, and though the issue of whether executive directors should be inside directors or outsiders with the firm has been well researched, no clear conclusion is reached (Jia and Chen, 2007:5). It was argued that inside directors are more familiar with the firm's activities and they can perform with little stress. Outside directors may act as watchdog and act on behalf of shareholders because they have legal obligations to the shareholders in order to enhance firm value.

3.2.9.9 **Board Meeting Frequency**

Board meetings are management meetings, annual general meetings and extraordinary meetings. Board meetings are very important because resolutions are made and it is a means of effective communication between the owners of companies and the management of those organizations. Moreover, monitoring, oversight function and other decisions are reached within the meeting before it is thrown out to the employees. Here emphasis is laid on management meeting frequency because the code has thoroughly explained AGMs and extraordinary meetings. The question is how frequent or often should management meetings be held for better performance? Annual general meetings and extra ordinary meetings are not to be negotiated because it concerns both the shareholders and the board of director.

The frequency of management meetings is not specified by the code, but prior studies revealed that the frequency of meetings improves governance. Jensen (1993:831) argues that the association between board meeting frequency and firm value remains unclear. The advantages accrued to high frequency meetings is that it is less costly to fix and adjust to the frequency than changing board composition and ownership structure. The disadvantages of frequently scheduled meetings accrue more costs such as travel expenses, directors' meeting fees and managerial time. A firm that is experiencing declines in value and performance is likely to meet more often to cope with the declining value, while a well performing firm may deem it fit not to increase the frequency of meetings. Jia and Chen (2007:1) discovered a mixed result on meeting frequency as being influential in improving operating performance. Hence, there will be a positive or negative relationship between board meeting frequency and firm value. In order for boards to effectively perform their oversight function and monitor management performance, every director shall be

required to attend at least two-thirds of all board meetings which must be held at least once in every quarter of the year. The attendance should form the basis upon which they shall be re-nominated the following year.

3.2.9.10 Board committee- Audit committee

The CAMA Act, CAP C20 LFN 2004 and 2016 National Code mandated functional audit committee in Nigeria. Members shall be at least three members, mainly non-executive directors with majority independent non-executive directors and with at least one member having knowledge of accounting and financial management. The result of Klein's (2002:375) and Anderson, Mansi and Reebs (2004:315) research showed a strong association between audit committees and firm performance. Kajola (2008:16) found no significant relationship between both variables. In summary, it is a mixed result which makes it open to further study.

3.2.9.11 Board committee- Risk management committee

The code also mandates the board of every company to establish a risk committee which shall be made up of the chairman and who shall be an independent NEDs and composed of a majority of NEDs, with at least one independent non-executive director.

3.2.10 Corporate Governance and Firm Value

Research has shown that well-governed firms resulted in higher firm value. Corporate governance is the way in which companies are governed, controlled and managed by the management of that organization. .Abdurrouf (2012:75) postulates that Corporate governance is what connects and relates the managers, other directors and the shareholders together. If companies are well managed, it would definitely improve the performance of the company, while weak governance is a short cut to corporate failure. An easy way of measuring performance is by making a profit. Yearly roll-over of profit by a given company keeps increasing shareholders' return in the form of dividends, thereby increasing firm value in the long-run. Several studies support that corporate governance improves the value of a firm. In fact, most studies' results are in support that corporate governance improves firm value. Arthur (2000) stated that capital flows elsewhere is a sign that company fails in its reputation in terms of corporate governance. Various studies suggested that companies with good governance practices perform better across the world.

Several studies showed the relationship between corporate governance and firm value. A few of them are reviewed below: Durnev and Kim (2005:1461) employed Tobin's Q as a proxy for valuation. They found that higher corporate governance scores positively predict firm valuation. Klapper and Love (2004:703) found that better corporate governance is correlated with better operating performance and market valuation. Ammann et al. (2011:36) also found a strong and positive relation between firm-level corporate governance and firm valuation. Good corporate governance may lead to high stock prices, higher dividends and higher investors (Jensen and Meckling, 1976:315; La Porta et al, 2002:1147). Shleifer and Vishny (1997:758) also revealed that good corporate governance may increase the expected return on equity and reduces shareholders' monitoring and auditing costs, leading to lower costs of capital. However, the following set of people stated that the cost for operating better governance mechanisms should not outweigh the benefit for higher company valuations (Gillan et al, 2003:1; Chhaochharia and Grinstein, 2007:1; Bruno and Claessens, 2010: 461). The majority of prior literature on the relationship between corporate governance and firm value documents that stronger corporate governance is associated with a higher firm valuation (Yermack, 1996:205; Gompers et al, 2003:107; Cremers and Nair, 2005:2859; Qeisari and Ahmadi, 2016:101; Core et al, 2006:655; Bebchuck et al, 2009:1263).

3.2.11 Ownership Structure and Firm Value

Ownership structure is an important factor in determining firm value. The structure of a firm in terms of ownership is the ratio of its debt financing to its equity financing. A company is said to be highly geared if the said company's gearing ratio is very high or above 50% of the total structure. This is otherwise interpreted as the ratio of debt structure being higher than the equity structure. The results from prior studies are mixed, although more studies support that equity sources of capital are better than that of debt financing companies. Supporters of equity financing suggested that debt is associated with corporate failure if not properly managed. Ownership structure can also be seen from the directors' involvement in shareholding. The code restricted the total number of shares that directors own, which should not be more than 5% and should be disclosed for objectivity and avoidance of conflict of interest. Ownership structure is closely related to corporate governance because some studies proxy it with corporate governance. It has also been proven that corporate governance improves firm value, since corporate governance is all about how suppliers of finance to companies assure themselves of getting returns from their

investments. Berle and Means (1930:54) and Fama and Jensen (1983:327) are the early supporters of equity financing. They argue that managers with little equity may fail to enforce value maximization because of the dispersed nature of their shareholders. Rayan (2008:1) also found an inverse relationship between financial leverage and firm value. Sheifer and Vishny (1997:737) found that capital structure represented by the debt to equity ratio and corporate governance are closely related. Jia and Chen (2007:1) also found a positive relationship between insider share ownership and corporate governance. Kumar (2005:16) also found that equity ownership influences firm performance. One of the reasons the supporters of debt financing gave was that a company that is highly geared is usually carefully managed because of the need to pay back both interest and capital. Debt financing is also tax free and if tax payment is exempted from company expenses, it boosts the company's profitability. Yearly rollover of profit improves company value in the long-run. A good example of debt financing is supported by Modigliani and Miller's model which says that capital structure does not influence firm value and that it is better to finance a company with debt than equity. Rajhans and Kawalpreet (2013:70) corroborated the MM's result. Adegbile (2015:48) found that leverage (gearing) is positively related with value of the firm. Lazarides and Pitoska (2009:1) also found an inverse relationship between capital structure and corporate governance. Antwi, Mills and Zhao (2012:103) concluded that both equity capital structure and debt structure as a component of ownership structure are important in determining firm value. Hence, determination of optimal capital structure and the corresponding cost of capital that considers both views is needful which is called WACC.

3.2.12 Board Characteristics and Firm Value

Features of the company's board members are very important because they are directly related with firm value. Company boards are the managing bodies of the business and their distribution and composition have a lot to do with the performance of the company. Features of a company's board could be in the form of board size, board diversity, board independence, board structure, etc. The 2016 Code of Corporate Governance dealt with this earlier in this study. Various studies on board characteristic and firm value are: Nguyen and Faff's (2007:24) work that revealed that the involvement women in the company's board improves firm value and promotes shareholders' value maximization. Mishra and Kapil (2018:41) also found correlation between board size, board independence and firm performance a significant positive association.

3.2.13 Managerial Group - Board Committees and firm Value

The National Code specified that every company should be have committees which are formed from the company's board. These committees should be made up of NEDs, with a majority of independent NEDs. Harrison (1987:109) and Klein (1998:275) revealed that firm's value significantly increases with the provision of two committees. Puni (2015:14) found an insignificant relationship with firm performance, although it was a positive relationship.

3.2.14 Effect of Corporate Governance on Firm Value

Boards of directors use corporate governance to direct and control the company in an effective, efficient and productive manner (Syakroza, 2003:1). The type of governance system would determine firm value. This has a great effect on determining business objectives to achieve the targets and to increase firm value in the long-run. Various studies on corporate governance have revealed a high correlation between corporate governance and firm value and that well-governed firms happen to have higher value. Qeisari and Ahmadi (2016:101) revealed that greater corporate governance is associated with higher firm value. Balasubramanian et al. (2010:319) found a positive relationship between the international corporate governance index and firm value. Black et al. (2006:366) also reveal that corporate governance positively affects Russian firms' market value and share price. In the global literature, results of the effect of all corporate governance mechanisms are mixed, like CEO duality with firm value where some revealed positive relationships others revealed negative relationships as shown earlier in this study.

3.2.15 Importance/ uses of corporate governance

Good corporate governance helps to overcome agency problems and therefore may affect firm value in two different ways. Firstly, good corporate governance may lead to high market capitalization and boost stock price. This promotes the company's goodwill; attracts and retains both potential and existing investors; and a greater percentage of the firm's earnings pay as dividends and the remaining as retained earnings (Jensen and Meckling, 1976:315; La Porta et al, 2002:1147). Secondly, good corporate governance may reduce shareholders' monitoring and auditing costs, leading to lower costs of capital. However, if good corporate governance is not in place, costs of capital may increase, thereby reducing returns on equity to the shareholders (Shleifer and Vishny, 1997:758). However, if the costs associated with the implementation of

strong corporate governance outweighs the benefits, higher company valuation may be denied (Gillan and Starks, 2003:1; Chhaochharia and Grinstein, 2007:1; Bruno and Claessens, 2010: 461). The majority of prior literature on corporate governance found a high association with firm valuation and affirms that companies with good governance practices perform better. (Yermack, 1996:205; Gompers et al, 2003:107; Cremers and Nair, 2005:2859; Core, Guay and Rusticus, 2006:655; Bebchuk and Hamdani, 2009:1263). Arthur (2000:1) posited that any country failing to have a reputation for strong corporate governance practices allows its capital to flow elsewhere. Good and Strong corporate governance is associated with the following: transparency, accountability, fairness, improved profitability, external financing, lower cost of capital, stronger capital market, increased investment, improve operational performance, increased firm value, improved share performance, reduces the risk of corporate scandals and boosts economic growth. Good corporate governance ensures the achievement of the overall corporate objective, which is shareholder's wealth maximization and the interest of other stakeholders. Above all, companies with strong corporate governance are likely to be very strong in terms of operationalization and firm value. They would not be threatened with going concern problems and will be far from any form of liquidation or failure.

3.2.16 Corporate governance and creative accounting

However good, robust and attractive the figures in the financial statement are, they can only be measured correctly if they are free from all forms of material errors and window dressing. Creative accounting is the presentation of falsified figures in the financial statements, either through a legitimate or illegitimate means. Creative Accounting is one of the most common accounting techniques used by CEOs of corporate sector companies across the world and one of the methods employed to play with the Accounting figures (Adiran, Romona and Romulus 2012:668). The Enron case and Arthur Anderson in 2002 as posited by Monks (2002: 116), Worldcom in the USA in 2006; Parmalat in Italy in 2009; and Intercontinental and Oceanic Bank in 2009 in Nigeria are good examples of creative Accounting and corporate governance cases in the world today. Corporate governance and creative Accounting are difficult to separate because it is the same set of people who manage and control the company who are the ones that window dressed. The actions of some CEOs kill companies slowly because of greed to present attractive figures that cover the company's true performance. This is indeed dangerous because figures in the annual report would

form the basis of decision-making and a true picture of Accounting ratios would also be derived from it when computed. However difficult it is, the solution here would be considered from two angles: from the board of directors and from shareholders. CEOs and other directors need to be honest in dealings, always knowing that a company's going concern is paramount and would keep and sustain their work and maintain high standards of corporate governance. Shareholders should also make sure that they provide high standards of corporate governance, provide monitoring bodies like external auditors and high standards and attractive total directors' emoluments according to how it was directed by the code of corporate governance. Prior studies such as Hussein's (2018:30) suggested that if good governance as well as effective control measures (both internal control and external control by external auditors) are in place, it would definitely control excessive window dressing and the cooking of figures in the financial statements. Another problem is that the presentation of falsified figures misleads other stakeholders in their decision-making process. It has also sent many companies to an early grave. Therefore, it is imperative to strictly adhere to laws, codes of governance, rules, principles and other voluntary rules that enhance the fair presentation of financial statements (Hussein, 2018:30). Romulus, Ramona and Adran (2012:668) stated that corporate governance is seen and considered as one of possible solutions to reduce creative accounting.

3.2.17 Corporate governance and corporate reporting

The level of accountability of every company is revealed through Corporate reporting. Hence it is an important mechanism that needs serious attention. Financial statements are a medium through which this reporting and other information get to the public. The responsibility for the preparation of the financial statements belongs to the directors and not the external auditor. Boards are accountable to all stakeholders (Deegan, 2004:87; Rezaee, 2009:1). Hence, directors are obligated to disclose all useful information to the stakeholders who have an active interest in the organization (Zairi and Letza, 1994:30). Eccles (2004:8) stated that corporate reporting includes the reporting of information beyond what regulations require. Both mandatory as well as voluntary disclosures based on the directors' discretion are beneficial to the public at large and the materiality of the transaction involved. What then is material to one stakeholder may not be material to another. This is where a director uses his discretion and considers whether non-disclosure would not affect the company negatively or lead to litigation. It provides the public with information about the extent

to which the organization has met the responsibilities imposed upon it (Gary, Owen and Maunders 1988:6). Prior studies on the relationship between corporate governance and corporate reporting quality are majorly positive. Klai and Omri (2011:158) revealed a positive association between corporate governance and financial reporting quality.

3.2.18 Capital market and corporate governance

Corporate governance and capital market may be difficult to separate. A capital market is a place where both primary securities and secondary securities of listed companies are traded. It is a place to issue and trade debt and equity capital which is germane to the global financial system and for the survival and growth of the national economies. Haque, Arun and Kirkpatrick (2008:1) asserted that the capital market enhances corporate governance standards, its effectiveness and the credibility of a company. Moreover, the corporate governance of a firm can enhance the ability of the firm to gain access to finance through subscription. The yearly performance of a company determines its market capitalization and how its stock value would be promoted and sold on the floor of the stock exchange. The life of capital markets is the capital provided by investors, which must be protected through appropriate regulations, good corporate governance and optimal market mechanism (Razaee, 2009:1). One of the key drivers of the economic growth of a country is investor confidence and its capital market (Razaee, 2009:1). Financial information from public and listed companies which is reliable, accurate and transparent is important to the efficiency, integrity and safety of capital markets. Therefore, a set of financial statements which is the end product of the financial performance of a company at the end of each financial year is a vital form of information to the capital market, their participants and other stakeholders. This is because investors rely on the quality of corporate financial reports in making rational investment decisions (Razaee, 2009:1). Having discussed the above concepts, there is need to model corporate governance and firm value in a chart to reveal the level of interaction among corporate governance variables.

Model on corporate governance and firm value

Fig 3.1 depicts a model of corporate governance and how it improves firm value. It is believed that interaction among all the concepts would lead to an improvement in the value of firms.

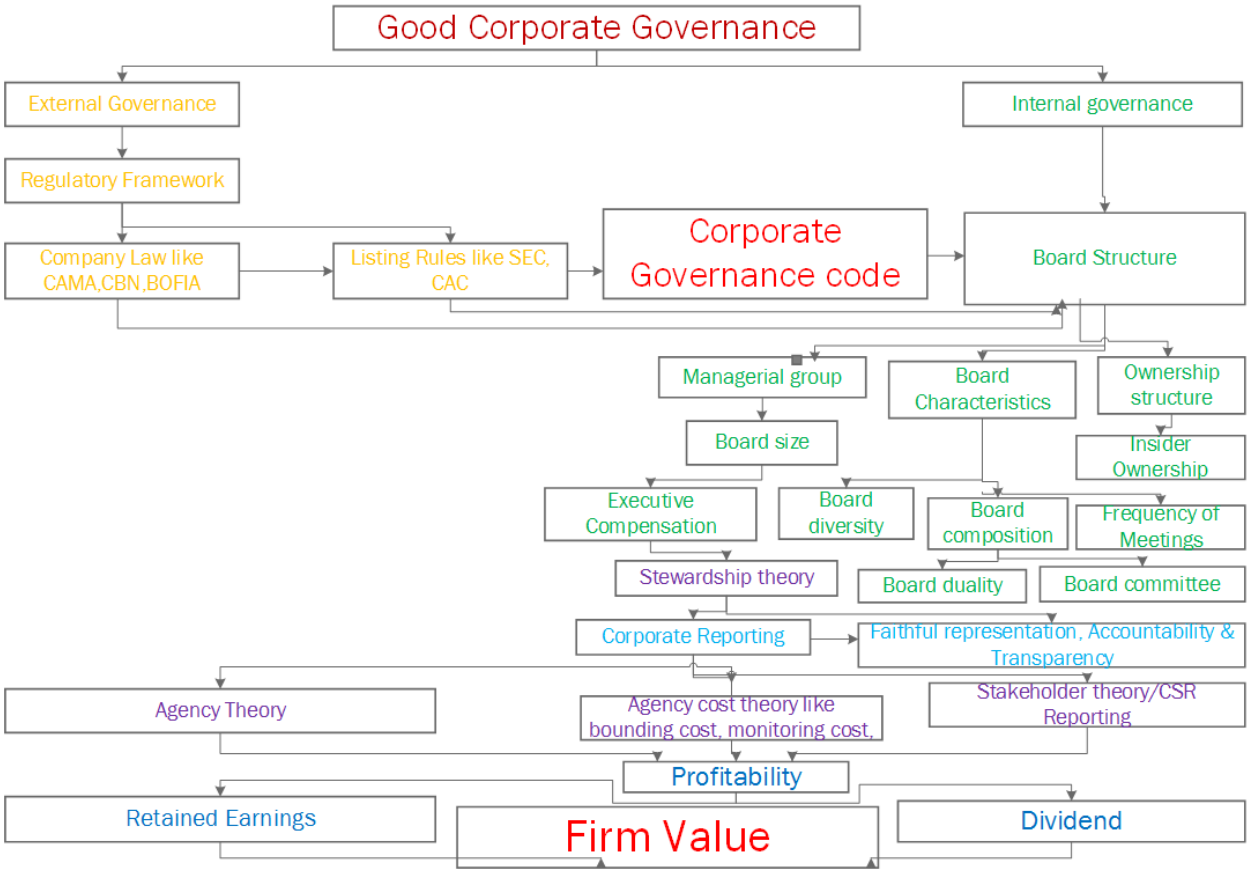


Figure 3.1: Model on corporate governance and firm value

Source: Own research (2019)

3.2.19 Interaction between corporate governance and firm value

The model above depicts how good corporate governance structure improves firm value. It is widely researched and proven that good corporate governance is an important factor that improves firm value (Chen and Jia, 2007:2; Baba, 2013:1). It has also been proven that the structure of corporate governance is directly related with a company's success or failure and it plays an important role in the future improvement and status of companies (Hassas Yeanch, 2005:866; Fazin Rezae, 2002:865). The need for this comprehensive model came to light because there is a need to align Agency Cost conflict with accountability and transparency; value sustainability; the productivity of corporate executive directors and their management; and it will add to the body of knowledge. It also has a connection and attachment to the economic growth and development of nations. The study derived with this model with an intention that the dynamic interaction of all the variables is structured to produce strong and good corporate governance. It is based on the fact

that the relationship between corporate governance in various countries due to disparate corporate governance structure resulting from dissimilar social, economic and regulatory bodies in countries (Gupta, Kennedy and Weaver, 2009:293). It is believing that this model may solve different economic problems that relate and associate to corporate governance, if strictly followed (Pourari and Arasteh, 2013: 943; Dittmar and Mahrt-Smith, 2005:559; Oesch, 2011:1; Qesari and Ahmadi, 2016:101; Ene and Bello, 2016:99; Abdur Rouf, 2011:75; Tornyeva and Wereko, 2012:95).

From the structure above, good corporate governance is required to be governed from two angles, **external** and **internal** governance as depicted above. **External** governance refers to the regulatory bodies that govern different countries, like the case of Nigeria's Company and Allied Matters Act (CAMA) the 1990, Central Bank of Nigeria (CBN), National Insurance Companies of Nigeria (NAICON), Securities Exchange Commission (SEC), Corporate Affairs Commission (CAC) which are grouped into company law and listening rules. The combination of both company law and the listen rule gave birth to a corporate governance code through the SEC. The code serves as a guide for internal governance. These bodies and the Federal Reporting Council (FRC) ensure compliance at all level for the implementation of the code.

However, **internal governance starts from board structure**. The board structure is sub-divided into a Managerial group, board characteristics and ownership structure. Croci (2018:13) highlighted the functions of the board of directors in her book titled 'The board of directors, corporate governance and its effect on firm value'. The book also confirmed a strong correlation the between board of directors and firm value. Managerial groups talk about the size of the board as cited by Kyereboah-Coleman (2007:350), who proved that large and independent boards enhance firm value. The fusion of the two offices negatively affects a firm's performance, as the firm has less access to debt finance. Managerial groups also lead to a duality of the board, which is all about separation of the office of board chairman from that of CEO. This generally seeks to reduce agency costs for a firm in the long-run, but in the beginning the cost of maintaining two offices may be a problem. Kajola (2008:16) found a positive and statistically significant relationship between performance and the separation of the office of board chair and CEO. Yermack (1996:185) equally found that firms are more valuable when different persons occupy the offices of board chair and CEO. The board size will also determine the total remuneration, which is directly related to firm value.

Executive compensation has a direct link with board size. Bauer et al. (2008) noted that remuneration affects corporate governance positively but has an inverse relationship with firm performance. Bauer et al. also found that remuneration is inversely but directly related to the amount of funds distributable to shareholders. Directors' remuneration is also directly related to the firm's cost of capital and firm profitability. Furthermore, the establishment of a board remuneration committee has been viewed as a mechanism for improving board effectiveness and cost control mechanisms (Main and Johnston, 1993:351; Newman and Mozes, 1999:41; Newman, 2000:602; Brennan and Solomon, 2008:885; National Code of Corporate Governance 2016). The remuneration policy of the any firm is also directly related to firm performance and firm value. From the Nigerian perspective, the 2016 National Code of Corporate Governance has identified remuneration systems as a governance point requiring greater transparency and alignment to the long-term strategies of companies. The code emphasizes the need for remuneration committees, wholly or mainly composed of both non-executive directors and independent non-executive directors. The committee should be chaired by an independent non-executive director with NED taking two-thirds of the non-executive directors. Emphasis was also laid by the code on the disclosures of directors' total emoluments, the Chairman and highest paid director with other relevant information about stock options and any pension contributions. All these must be disclosed in the annual report.

The **second aspect** of board structure is **board characteristics**, which are sub-divided into board composition, board committees, board diversity and the minute of meetings. It was argued that board diversity increases board independence because people with different gender, ethnicity or cultural background might act like an activist and ask questions that would not come from a director's mind-set. Hence, there is a mixed result from prior studies on board diversity and firm value. The 2016 National Code of Corporate Governance of Nigeria made it mandatory that the number of NEDs be more than the executive directors for independence, transparency and for the protection of the shareholders' investment. Fama (1980:288) and Fama and Jensen (1983:327) consider the board of directors as an important element of corporate governance and acknowledge the role of outside directors as a watch-dog to management and as a resource person. In order for the board to effectively perform its oversight function and monitor management performance, the code instructed that all directors are to attend at least two-thirds of all the board meetings. This meeting must be held at least once in every quarter of the year and should be the basis of their

performance evaluation for their re-nomination. The composition of the Board based on the recommendation of the 2016 code should be made in such a way as to ensure diversity of experience without compromising accountability, transparency, compatibility, integrity, quality reporting, adequate disclosures and independence. The Board should comprise a mix of one-third executive directors, two-thirds Non-Executive Directors and independent non- executive directors should be half of the two-thirds headed by a Chairman from the independent non-executive director and not to exceed 15 persons or be less than 8 persons in total and 5 persons for regulated private companies. Although the results of Klein (2002:375) and Anderson, Mansi and Reeb (2004:315) showed a strong association between audit committees and firm performance, Kajola (2008:16) found no significant relationship between both variables. The ownership structure is the third branch which says that directors should disclose any form of shareholding by any director that can cause a conflict of interest and impairs objectivity. From the chart, Agency Theory which leads to Agency Cost Theory, Stakeholder's Theory and Stewardship Theory are the theories underpinning the corporate governance part of this work. This leads to stewardship accounting and it is the duty of boards of directors to be accountable and present a reasonable and transparent assessment of the Company's financial position annually. The profit declared depends on the company's dividend policy as to the percentage to be paid as dividends to the shareholders and the percentage to be retained. The company may decide to retain a hundred percent of profits, which will have a greater effect on firm value.

3.2.20 Conclusion

The conceptual review reveals that several authors have provided different definitions because of their areas of interest, cultural belief, political and technological environment and that those definitions are either from narrow points of view or broad points of view. Whichever view one takes, a good definition should tends toward the maximization of the firm value. Anything short of that brings the question of whether good corporate governance is in place. The OECD (1999) defined ''good corporate governance as the governance that helps to ensure that companies take into account the interest of a wide range of constituencies, as well as of the communities within which they operate''. Moreover, their boards must be accountable to the company and the shareholders. This in turn helps to assure that companies operate for the benefit of society as a whole.

The common ground to know if good corporate governance is in place is when shareholders and other stakeholders agree that effective corporate governance is in place. This can be determined in a company financial statement when the following principles are in place: *Transparency*, that is when there is full compliance and disclosure of financial and non-financial information, *accountability* which is ensuring that management is effectively overseen and monitored by independent and competent external auditors; next is *fairness* and responsibility which according to Fremond (2000:4) that there must be equitable treatment of the items in the financial statement and to other stakeholders and lastly, the company must assure that its role to society is fulfilled. Lastly is *value sustainability* which guarantee that going concerned of the company is not threatened. Financial statements are the main communicating medium to other stakeholders since Nigeria has not adopted Integrated reporting as part of disclosure requirements as a means of communication to the other stakeholders.

3.3 Accounting ratios and Firm value

3.3.1 Introduction

To avoid corporate failure and ensure the going concern of firms, accounting ratios that are free from any material error and window dressing should always be a tool employed by a CEO and other board of members at any time during the financial year. Accounting ratios give signals to areas that need immediate attention. For any managerial decision (investment Financing and dividends), managers need accounting ratios in order to know the actual performance of their companies. If investors want to choose companies to invest in, they need the figures in the financial statements, which are a product of and subjected to the quality of work done (corporate governance) by the management (Wahlen and Wieland, 2011:89).

3.3.2 Definition of Accounting Ratios

An accounting ratio is “an arithmetical expression, i.e. a relationship of one number to another”. “An accounting ratio is a nexus, link and signal between management and shareholders and other users of the financial statements”. It may be defined as “the mathematical expression of showing stewardship accounting to the owner of the business”. It is expressed as a proportion, a fraction, a percentage or in terms of number of times. An accounting ratio is “the relationship between two accounting figures expressed mathematically” (Enekwe, 2015:25). Ratios help measure the

relative performance of different financial measures that characterized the firm's financial health. However, using ratios often provides a standardized and quantitative measure which is easier to interpret.

Accounting ratios assist in measuring the efficiency and effectiveness of a company based on its financial reports. Also called 'financial ratios', accounting ratios provide a way of expressing the relationship between one accounting data point and another, which is intended to provide a useful comparison. (Investopedia, 2017:1). In this work, Accounting ratios provide a way of expressing the relationship of firm value data and corporate governance data because it is believed that accounting ratios are a measuring tool and can be applied by management to improve the financial position. Value is added when management responds to the ratio through the reliability of data and information, transparency of the preparer of financial statements and accountability of the management or directors. Therefore, prompt responses and how sensitive the board of directors and managements are to the flow and dictate of ratios determine if value would be created, or not.

3.3.3 Financial Statements and Accounting Ratios

Accounting ratios are a means of checking how healthy a financial statement is and the performance of management in terms of their governance. Enekwe (2015:19) states that corporate performance is always assessed through a ratio analysis. Every year, companies publish an annual report with financial statements as a means of communication to stakeholders and other users of the financial statements. Annual financial statements are required to be prepared according to International Accounting Standards (IAS1). The annual report contains various financial statements: statement of comprehensive income, statement of financial position, statement of cash flow, statement of changes in equity, description of accounting policies and notes to the financial statements. Each statement provides the investors and other stakeholders with information about the performance of the company through management governance over each fiscal year. Various computations of accounting ratios from the financial statements help Stakeholders who rely on the financial statements in order for them to make decisions. The extent of accountability, transparency and reliability of reporting will dictate the quality of accounting ratios produced by the financial statement. It is the accounting ratios that will showcase and prove the extent of the work done by the management. It is a way of reporting whether or not the company is improving in terms of performance.

Managers use financial information to take economic decisions. To employees, it is a source of information for job security, future careers and the payment of wages and salaries. To an auditor, financial statements supply information that will assist in forming his opinion as to the truthfulness and fairness of financial statements and other spin-off functions like rates of compliance to the standard. To government, it helps in assessing the company's tax liability and tax compliance and to creditors, it supplies them with information on whether to continue with the company or not. Accounting ratios are an important tool of economic decision-making for all businesses. Lofi (2009:1) and Okwuosa (2005:1) as cited by Enekwe (2015:20) argue that ratios are used as a means of expressing these relationships. Nwoha (2006:1) and Enekwe (2015:20) also sees ratio analysis as a tool for interpreting financial statements.

However, according to the conceptual framework 3 guidelines, Bovee, Srivastava and Mak (2003:57) it is important to note that financial information as represented by accounting ratios from financial report be relevant and useful for decision-making. It must satisfy both fundamental and enhancing qualitative characteristics of relevance, faithful representation, comparability, verifiability, understandability and timeliness of the conceptual framework in financial reporting. Those characteristics are treated below:

3.3.3.1 **Relevance**

For financial statements to be useful, they must be relevant to the decision-making of the users. According to the framework, Bovee, Srivastava and Mak (2003:57) it is a fundamental qualitative characteristic and information has the quality of relevance when it influences the economic decision of users by helping them to evaluate past, present and future events or correcting their past mistakes or evaluation.

3.3.3.2 **Faithful Representation**

Information must represent faithfully what it purports to represent. Experts in the field must verify all data very well before taking decisions and be very careful so that wrong decision that will mislead users will not be taken. Faithful representation brings out the true picture of a company's financial statements, which has a positive relationship with firm value (Bovee, Srivastava and Mak, 2003:57).

3.3.3.3 **Enhancing qualitative characteristics- Understandability**

Information in the financial statements must be readily understandable by users who have business, economic and accounting knowledge. Any technical word that will not materially affect the understanding of the financial statement should be avoided (Bovee, Srivastava and Mak, 2003:57).

(i) Verifiability

Information in the financial statement should have a source and be able to be traced to the final leg. It must be assessable at any time. These improve the quality and authenticity of the data in the financial statements which improves value in the long-run (Bovee, Srivastava and Mak 2003:57).

(ii) Timeliness

For information to be effective and relevant, it must be supplied to the users at the right time and the right place, which must be free from material error. This also improves value in the long run.

(iii) Comparability

Users should be able to compare the financial statements of an entity through time (trend analysis) to identify a trend in its financial position and performance and to compare that of other entities. Through comparative trend analysis, a company's performance could be analyzed over years for necessary corrective measures, especially when ratios are giving the company bad signals.

Apart from the characteristics mentioned above, other guidelines are required for the following features for the connectivity of information: reliability, materiality, conciseness, consistency and completeness in the integrated report (IIRC 2013:5).

3.3.4 Purpose of Accounting Ratios

Accounting ratios are very important because they provide information, especially when the data in the financial statement is interpreted in order to guide directors and management in their decision making. There are many purposes that accounting ratio can serve: First, the ratios over time give one an idea of whether the company is growing, performing or deteriorating financially or otherwise in the hands of those who govern it. Ratios tell the direction of the growth and the rate of growth. Secondly, accounting ratios can be compared to standard ratios of the industry to determine industrial performance. It can also help to know if the company is failing or not in order

to take corrective measures to avoid permanent failure. Above all, another thing that this study discovered is that accounting ratios are value enhancer. According to Ugwuanyi (2004:1) and Enekwe (2015:20), ratio analysis techniques investigate firm performance through financial ratios. They added that a ratio is used as a benchmark for evaluating the financial position and performance of a firm. Accounting ratios are mostly frequently and widely used in practice to assess firms' financial performance and healthy condition.

ICAN (2006) defines a ratio analysis as the most important device for interpreting the performances of companies from their financial statement. Use of accounting ratios to assess the firm value is not new. However, it is good and useful if financial statements satisfy both fundamental and enhancing qualitative characteristics as stipulated by the conceptual framework. If this assessment results in robust computed ratios, then value is assumed to have been created. Accounting ratios are used in value predicting models. For example, they are used as inputs for empirical studies or are used to develop models to predict financial distress or failures (Altman, 1968:589; Beaver, 1966:71 and Delen, Kuzey and Uyar, 2013:3971). In fact, a vast majority of recent studies focused on analyzing and potentially predicting bankruptcy as a means to identify characteristics through financial ratios in other to determine good or bad-performing firms and their potential values (Kumar & Ravi, 2007:28 as cited by Delen, Kuzey and Uyar, 2013:3971 Alfaro et al, 2008:110 as cited by Delen, Kuzey and Uyar, 2013:3971; Holsapple and Wu, 2011:271 as cited by Mosconi and Roy, 2013:72; Wilson and Sharda, 1994:545 as cited by Delen, Kuzey and Uyar, 2013:3971).

3.3.5 Accounting ratio and Firm value

The analysis of financial statements with the help of accounting ratios is suitable, especially for external users that do not have access to the internal data of the company. So there has to be assurance that financial reporting represents a fair presentation of an organization's economic activities, as argued by Ingram and Albright (2007:1) and Asiri (2015:2). McLeaney and Atrill (2005:1) as cited by Ingram and Albright (2007:1) reported that ratio analysis is a simple means of assessing the financial health of a business. Accounting ratios therefore affect firm value because they can reveal the strengths and weaknesses, as well as areas that need serious attention, which would be analyzed more carefully. On the other hand, if the financial statement is window dressed, accounting ratios provide misleading and harmful information that affects decision-

making. Investors and other capital providers compare ratios when they are about to take decisions and to forecast their future developments, as argued by Wahlen and Wieland (2011:89) and Lev, Li and Sougiannis (2010:779) as cited by Asiri (2015:2); Užik, and Šoltés (2009:52) as also cited by Malikova and Branbec (2012:79).

3.3.6 Accounting ratios and creative Accounting

This is also known as window dressing and the information in the annual report will definitely affect the result of the Accounting ratios computed if the report is distorted. Moreover, the users will base their decisions on false information which will affect overall decisions. According to Mamo and Aliaj (2014:55), financial information manipulation and distortion create a false impression of an organization's financial strength to the public. There are ways in which managers can distort financial statement data, like revenue management, income smoothing, creative accounting practices, capitalizing expenses, off balance sheet financing, over provision for bad debt and aggressive accounting. It creates large asymmetry information for users of financial statements that affect decision-making. Accounting ratios are therefore affected where there is creative accounting and it would also affect decision-making.

3.3.7 Analysis of Financial Statements

The Financial statement analysis objective is to examine the company's financial position in terms of returns and risk, with a view to forecasting the company's future prospects. Financial analysis has gone beyond the analysis of ratios only but includes the need to measure level of accountability, transparency, value sustainability, integrated reporting, evaluating financial indicators to determine firm performance in terms of sustainability and how it impact society and the environment (Carlos et al, 2019:501). To be able to perform this task, the main document that can be employed by any interested party is the financial statement. King IV and the 2016 National Code of corporate governance require an integrated report as an additional document to be analyzed for proper analysis to be done. Carlos et al (2019:501) posited that boards of directors, management and investors extensively used financial analysis and accounting ratios for corporate performance analysis, evaluation and monitoring of the activities over the year. Analysis of financial statements is defined by Enekwe (2015:20) as the process of identifying financial strengths and weaknesses of a company by properly establishing relationship between two key

variables of the statement of financial position and statement of comprehensive income. There are different ways of analyzing financial statements, such as trend analysis and a comparative analysis. A ratio analysis is however the most widely used as it assists the analyst and other users for understandable indices.

3.3.8 Annual Financial Statement and Integrated Report

At the end of each financial year, company's directors are expected and mandated by the company act 2008 and CAMA 1990 to produce IFRS compliant financial statement and present it to the shareholders at the AGM. Companies are required in the report to include auditor's report and director's report. The report may also include chairman's report and CEO's report which should include segment report and operation result during the year and the years to come.

3.3.9 Integrated Report and value sustainability- Business Model

This is another way to improve and determine value of the firm as an addition to annual report, King IV and 2016 national code required all listed companies to produce integrated report. This report content is to contain information about company's governance, firm's current financial performance, management of risk as well as its future prospects. It should also contain CRS and economic and environmental impact and other non-financial information. An integrated report is seen as business model that helps in sustainability of value created by an organization. The report should indicate how value is being created, how external environment affect company and how company employ capitals to create value (Carlos et al, 2019:502).

3.3.10 Integrated Reporting content and firm value/firm performance

The content of an integrated reporting consists of eight elements according to IIRC (2013:5) and they are: organizational overview and external environment which must state the organization's object and under the circumstances in which the company operates. The Next one is governance which talk about company's corporate governance structure and if it is in support of value creation. The next one is the company's business model and whether it possesses all the capitals. The next one is to state the company's risk area and their opportunity that affect or may affect the company ability to create value now or in the future and how the company intend to tackle them. Strategy and resource allocation is the next one which helps the company to get to where it wants to go and means of getting there. The next one is the performance measurement which is all about the

company able to meet the target and if not what cause it and how to rectify it to guide against future reoccurrence would need to be addressed. The last but one is the organization's outlook which is to address challenges and uncertainty facing the company and its implication to the business model for future performance. The last one is the basis of presentation which is about determination of matters to be included in the integrated report and how to quantify or evaluate those (Carlos et al, 2019:504). The question is how to use this report to evaluate company's performance or determine value. The answer according Carlos et al (2019:504) is simply to evaluate and relate the outcome of the integrated report with IIRC's guidelines and the content elements. This can as well be compare with the quantitative analysis report from ratio analysis. Therefore, the report may include both quantitative and qualitative information using some key performance indicators as a benchmark as to whether the company achieve its target or fall below its target.

3.3.11 Analysis and Interpretation of accounting ratios

Ratio analysis is a useful management tool that improves the understanding of financial result and trends over time and provides key indicators of organizational performance (Carlos et al, 2019:515). Managers use ratio analysis to give meaning to the various ratios computed with the view of ascertaining the SWOT of the company from which strategic decisions are taken. Ratios are numerous and analysts use it to project future. Also stakeholders should also understand that there are various factors that affect those ratios in the future from giving the rightful projected future. ICAN study pack (2015) explained different types of ratios: these are trend analysis ratios which are used to compare present ratios with the past and the expected one for the same company, cross sectional analysis ratios which is use to compare ratios of one company with the other company and industrial average analysis ratios which is also used to measure the position of a firm among other firms or competitors. Ratios such as return on equity, return on asset, return on sales etc indicate how effective the board and management have been in using shareholder's equity and company asset to generate and derive an acceptable rate of return.

In spites of the above accounting ratios suffer from the limitation of accounting data in the financial statement. Financial statements often may not reveal the true state of affairs of the firm. Hence the result of the ratio analysis will be misleading and also not give the true position of the firm. Inflation could be another limitation which ignores the changes in price levels. This makes the

analysis of the financial statement meaningless. Companies sometimes also use different accounting policies and practices such as inventory and depreciation valuation method may be differing. Another limitation which is important is window dressing, financial statements that are vulnerable to forgery and window dressing or misrepresentation off acts. A ratio analysis is in no way equipped to detect this. If manipulated financial position or income statement is analyzed, you are bound to get wrong and misleading information.

Despite all the above limitations surrounding accounting ratios they are still widely used due to the following: Accounting ratios help in understanding the efficiency and efficacy of decisions. It helps in understanding whether the business has taken the right kind of business decisions. It also helps in summarizing the financial statement information in an effective manner and carrying out comparative analysis. It identifies areas that need attention and other SWOT analysis by so doing area where there is problem would be identified in other to take corrective measure. (ICAN study pack 2015). For better interpretation and effectiveness of ratios, it needs to be compared with historic, industrial ratios or board's goal and standards to allow trend analysis (Carlos et al, 2019:515).

3.3.12 Identification of various classes of accounting ratios

Accounting ratios are numerous as posited by Carlos et al (2019:515), in their book referred to accounting ratios as infinite where accounting ratios were grouped into six namely liquidity ratios, asset management ratios, debt management ratios, profitability ratios, cash flow ratios and market value ratios. Whatever grouping or classification given to ratios does not really matter but what matters is to know, interpret and understand the function of each ratio in the financial statement. However, For the purpose of this study, accounting ratios are re-classified and re-summarized into four because those ratios are interwoven and given the same meaning under the following headings: Profitability ratios which are ratios that measure the overall business obligation. It can be expressed in relation to capital employed or total revenue. Example are ROCE, ROTA, ROE net profit margin ratio, cash ratio etc., Asset utilization ratios or efficiency ratios measure how asset of a business firm is being used to generate revenue. Examples here are trade receivable collection period, trade payable payment period, asset turnover, stock turnover etc. Financial ratios are ratios used to determine the ability of a firm to meet its current obligation as and when due. It is always classified into short term liquidity or solvency ratios and long term solvency or stability

ratios. Examples of such ratios are current ratio, quick ratio, gearing ratio, debt equity ratio, debt ratio etc. and investment ratios are those ratios that measure earnings available for ordinary shareholders and other attributes of ordinary shares. Examples are EPS, earning yield, DPS, P/E ratio etc. The above classifications of ratios are presented below:

3.3.12.1 Profitability Ratios

The ratios under this group reveal the performance of the organization. This is because the ratios represent the result from management operational efficiency, result from policies adopted and decisions by the board and other management. Example of profitability ratios are shown in the table below:

Table 3.2: Profitability Ratios as a first class of Accounting Ratios

Ratios		Formulas
1	Gross profit margin ratio (GPM)	$\frac{\text{gross profit}}{\text{sales revenue}}$ x 100%
2	Net profit margin ratio (NPM)	$\frac{EBIT}{Sales\ revenue}$x100% or $\frac{Net\ profit}{Sales\ revenue}$x100% or $\frac{EBITDA}{sale\ revenue}\ x$ 100%
3	Return on Asset (ROA)	$\frac{EBIT}{Total\ Asset}$ x 100% or $\frac{NOPAT}{TOTAL\ ASSET}\ x$100% or $\frac{NPAT}{TOTAL\ ASSET}$ x 100%
4	Return on capital employed (ROCE)	$\frac{NOPAT}{Net\ operating\ asset}$ x 100% or $\frac{NOPAT}{Capital\ Employed}$ 100%
5	Return on invested capital(ROIC)	$\frac{NOPAT}{Average\ invested\ capital}$ x 100%
6	Return on Net Asset (RONA)	$\frac{NOPAT}{Net\ Asset}$ x 100%
7	Return on Equity (ROE)	$\frac{Net\ profit}{Total\ shareholders\ funds}$ x 100%

Source: Own research 2019

These ratios measure performances of an organization from different angles. Reduction in the value or ratio of any type of ratios in this category indicate danger if it is not part of the management strategy. For instance, management may decide to increase sales revenue by reducing markups otherwise it is a bad sign to the organization. This could be attributed to weak in corporate governance control, inventory losses through lack of proper control and high competition in the industry. However, when there is genuine increase in those ratios, it is a good sign of performance and good management efficiency that can improves and sustains company's value in short, medium and long term. However, when companies experience continuous increase in these ratios it sends good signal to all stakeholders, gives shareholders rest of mind and attract new investors.

But when there is reduction in any of the ratios, it is called value loss and a caution sign for board and other management of the organization to take immediate corrective measures.

The relationship between accounting ratios within the context of value creation is therefore revealed and conceptualized by the definition of ROCE. Instead of using dividing net operating profit after tax by capital employed, it is divided by net operating assets. Therefore, in line with Economic Value Added, if ROCE, ROIC or ROA is defined using net operating assets or invested capital and then compared to the firm's weighted- average cost of capital. The average cost of capital a firm pay on its long term sources of finance is called WACC. The decision is therefore according to Corria (2019:524) if ROCE, ROIC or ROA exceeds WACC it then means that, what the firm generated from investment is greater than its invested capital that would need to pay back to the debt and equity holders and it then means value had been created. If otherwise when WACC exceeds ROA, ROCE and ROIC it is a serious and bad signal to the firm because value has been destroyed. ROA was therefore employed in the analysis as one of the accounting ratios employed to determine whether accounting ratios affect firm value or not.

3.3.12.2 **Efficiency/Asset Utilization Ratios**

The group of ratios measure how efficient are company assets and how effective are management utilizing the company's asset. Managements need serious monitoring and control here because companies are prone to outside customers and they can easily loose huge sum through any form of mismanagement of inventories either through procurement, theft or wastage at any stage. Examples of those ratios are enumerated below:

Table 3.3: Efficiency/Asset Utilization Ratios as a second class of Accounting Ratios

Ratios	Formulas
Inventory turnover	$\frac{Cost\ of\ sales}{Inventory}$ times
Average collection period	$\frac{Account\ receivable}{Average\ Sale\ revenue}$ x 365 days
Average payment period	$\frac{Account\ payable}{Average\ or\ credit\ purchases}$ x 365 days
Asset turnover	$\frac{Sale}{operating\ assets}$ times
Fixed Asset Turnover	$\frac{Sales}{Fixed\ Assets}$ times

Sources: Own research 2019

Interpretation of these ratios is disjointed. Excessive inventories are unproductive and represent an investment with a low or zero rate of returns. Important issue here is that each company must understand their policy in terms of the company's maximum level of inventory, minimum level of inventory and the economic order quantity so as to avoid wastage, theft, obsolescence and other costs associated with inventory management. Also for creditor management and debtor management to be highly efficient and effective credit policy and debtor policy must be strictly adhered to and kept so as not to adversely affect the company's liquidity. For instance, average collection period is the average length of time a company needs to wait after sales transaction before cash receipt. An extension of this number of days may cause liquidity problem.

3.3.12.3 **Financial Ratios**

A major concern is the ability of the company to meet all financial obligations as and when due. This is majorly known through the preparation of statement of cash flow and cash budget. The ratios here include debt management ratios which are very important to the existence of the companies because the higher the financial leverage of a company the higher the risk. This is because debt financing attracts fixed interest and company becomes volatile as fixed assets would be held as collateral for the debt. Not only that, it may negatively affect the shareholder's return on their investment because loan repayment with fixed interest may cause fluctuation or reduction of company's earnings thereby reduce net worth of the investors.

Table 3.4: Financial Ratios as a third class of Accounting Ratios

Ratios	**Formulas**
Current Ratio	$\frac{Current\ Asset}{Current\ Liabilities}$ Times
Quick ratio	$\frac{Current\ Asset - Inventory}{Current\ liabilities}$ times
Debt ratio	$\frac{Total\ Debt}{Total\ Asset}$ x100%
Debt to Equity	$\frac{interest-bearing\ debt}{Total\ Equity}$ x 100%
Gearing ratio	$\frac{Prior\ charged\ capital}{Total\ Debt}$ x 100%
Interest Cover	$\frac{EBIT}{Interest}$ times
Cash flow to Total Debt	$\frac{Cash\ flow\ from\ Operation}{Total\ Debt}$ x 100%

Sources: Own research 2019

Ratios under this group are interpreted as follows: current ratio indicates the extent to which the claims of short-term creditors are covered by the assets that can be translated into cash within short period. This ratio has a general thumb rule of 2:1 which is believed that result below this is a red signal to the organization. Reduction below this benchmark may be subject to increase in account payable, reduction in collection of account receivables, cash and inventory and it is a sign that the company in question is having liquidity problem. Acid test ratio considers that inventory may take longer before it is converted to cash, therefore there is need to calculate the same ratio without relying on the sale of inventory. The rule of thumb here is ratio 1:1 and the interpretation is the same as current ratio. The calculation of total debt includes all funds from creditor such as long term liabilities, current liabilities, and preference shares. The interpretation here is that the higher this ratio the higher the financial risk. The implication is that it would be unattractive to the investors because of the high risk attached and a very low ratio would also not be attractive because of gearing returns foregone. Debt to equity ratio is similar to debt ratio except the later only consider interest bearing debt to equity. This ratio reveals the extent to which long term debt is covered by shareholder's fund. Interest cover is a ratio that measures the extent to which profit can fall without company experiencing financial loss. The implication here is that failure to meet this obligation is a bad signal to the company because it can lead to bankruptcy, insolvency or even sudden failure. Cash flow ratio are considered by most analyst as one of the most important indicators that reveal the financial stability of companies because if cash flow is unstable, such company might fail to meet financial obligations and may cease operation. Gearing ratio is also similar to debt to equity ratio. However, the implication of this ratio is that it might be difficult for company to borrow more funds when there is need for it if there is high level of debt. The ratio can also be used to determine the capital structure change.

3.3.12.4 **Investor Ratios**

The ratios here are interest to investors in shares and bonds and other interested party who may want to invest in the company. They are indicator to the investors of past performance and a direction for future prospects. Some of these ratios measure the performance of stock market.

Table 3.5: Investor Ratios as a fourth class of Accounting Ratios

Ratios	Formulas
Earnings per Share (EPS)	$\frac{Profit\ After\ Tax}{Number\ of\ Ordinary\ Shareholders}$ x 100%
Earning Yield	$\frac{EPS}{Market\ price\ per\ share}$ x 100%
Dividend per Share	$\frac{Dividend}{Number\ of\ ordinary\ Shareholders}$ x 100%
Dividend Yield	$\frac{Dividend\ per\ Share}{Market\ price\ per\ Share\ (MPS)}$ x 100%
Price-earnings Ratio	$\frac{MPS}{EPS}$ times
Dividend cover	$\frac{EPS}{DPS}$ times

Sources: Own research 2019

Ratios under this group are interpreted as follows: EPS is a key measure of a company's financial performance by measuring how much earnings accrued to each equity shareholders. It is a measure of how expensive or cheap a share is compare to reported earnings. Reduction in this ratio is a bad signal to the company. However, company may experience reduction in EPS when debt structure increases because of finance cost. Earning yield indicates the yield expected of investors to earn. P/E ratio reveals how much investors are ready and willing to pay per naira of reported profit. A high P/E ratio is a good sign of future growth while low P/E ratio means that the company would experience poor future growth. It is an inverse of earning yield. DPS measures how much dividend accrued to each equity holder in relation to dividend declared by the company. The dividend yield ratio indicates how much investors get on their investment in form of dividend. Here, it depends on the policy of the company but a company with high dividend yield may experience low share price and low investment.

3.3.13 Sampled of ratios employed for the study.

The following ratios are employed to measure accounting ratios for the purpose of this study. At least one ratio is chosen from each group as classified above. Other ratios like ROA, EPS would later be dealt with during the course of the study. The ratios were chosen because of their importance to the survival of any company.

3.3.13.1 Current Ratio

This ratio is very important because it measures the company's ability to meet obligations such as account receivables, adequate inventory level and payables using short term current assets. The corresponding value of inventories can be converted to meet the short term obligation. However, some obligations need urgent repayment that cannot permit conversion of inventory to cash before the transaction can take place, quick ratio can take care of that because quick ratio is current ratio minus inventory. These two ratios show whether a company has adequate resources to repay as and when due or if there is possibility of cash flow problem in the near future. Failure to adequately manage this ratio very well such company would cease operation. Here a ratio of 2:1 is usually considered as a benchmark or a control but it may vary across industries and it is calculated as specified above.

3.3.13.2 Debt to Equity Ratio

This ratio shows the capital structure of a firm. It reveals whether a company is funding solely by debt or solely by equity fund or mixed structure. Contrary to people believe, debt is not as bad as it is. It can make or mal business if not probably managed. It can only be negative to business when it is not used for the purpose it meant for and if is not used for productive purposes such as purchasing asset that can improve efficiency. Also companies that are capital intensive may have no choice than to go for borrowing, this automatically changes this ratio. If it is managed very well it enhances performance and may initially reduce shareholder's value but in the long run it would improve firm value. This is calculated by dividing total debt of the company by the shareholder equity fund. Antwi, Attamill and Zhao (2012:103) posited that this ratio is relevant for firm value.

3.3.13.3 Asset Turnover Ratio

This ratio was employed because of the importance of assets both current and fixed to any organization. This is one of financial ratios that measure the firm's assets' ability to generate more sale in the future. It is calculated by dividing net sales or net turnover by average total asset. It measures efficiency of the organization by comparing its assets to generate sales. An organization that has high profit tends to have low asset turnover. However, for decision making, this rate is better compared with its industry in which the company operates. This is because a firm with best asset is likely to make more sales that would generate more profit compare with firm with old assets. If an asset turnover ratio is R3.89 means that for every R1 worth of asset generate R3.89

worth of sales. For instance if a company's fixed asset turnover is higher than other in the same industry or other competitors, it means the company is using fixed asset to generate sales better than its competitors or the company has better and current fixed asset than its competitors.

3.3.14 Accounting ratios and financial reporting/corporate reporting

Fundamental analysis and accounting ratio analysis must form the basis of all financial reporting, because without knowing the true financial position of a company you are purely speculating and going concern is threatened. Therefore, accounting ratios and financial reporting are closely related. This study then looks into how accounting ratios leads to financial reporting and finally lead to firm value in a simple chart.

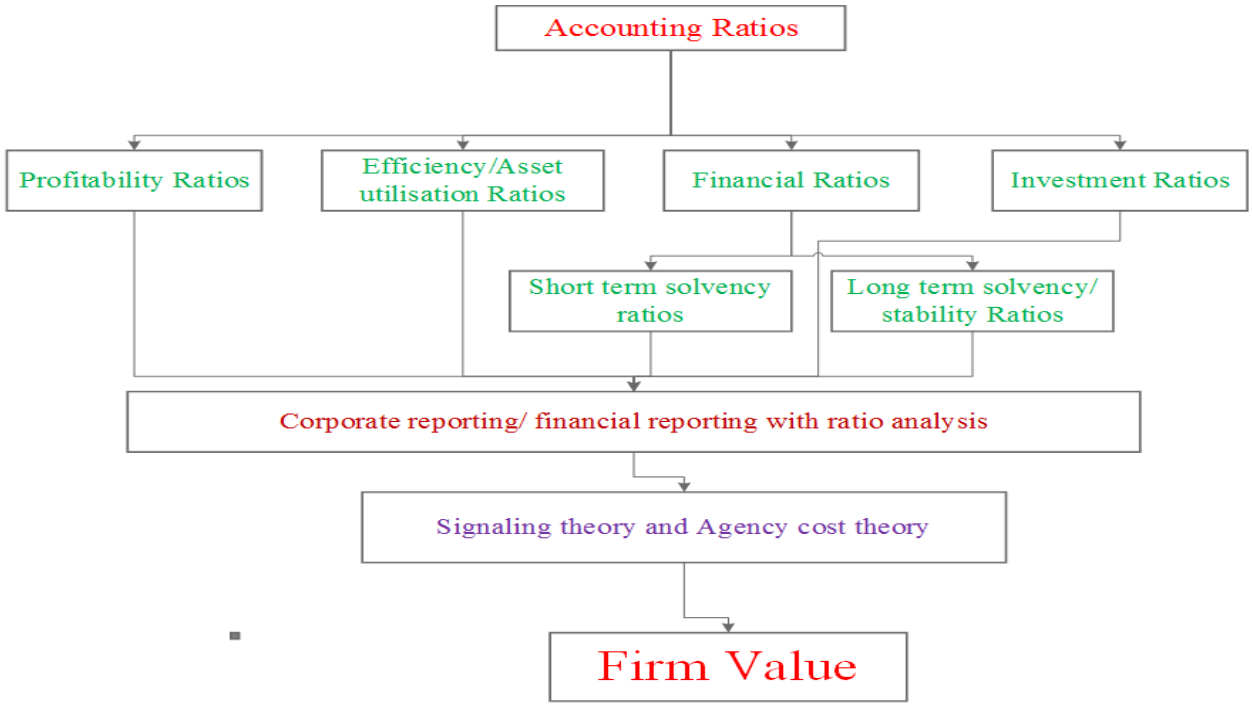


Figure 3.2: Interaction between Accounting ratios and Firm Value

Sources: Own research, 2019

3.3.15 Interpretation of the model

The model above depicts the relationship between the financial strength of a company as reflected by accounting ratios and firm value. The fundamental theory for this model is signaling theory and

agency cost theory which relate to the higher cost of capital the lesser the firm value which will automatically result to low accounting ratios. Good corporate governance reduces cost of capital which has a direct link with agency cost, lead to better and higher accounting ratios and increase firm value in the long run. The computed ratios provide a signal to the management of an organization to know the right decision to take at any given time for smooth running of the business and investors on which investment to choose. Accounting ratios are used to access and determine the value of any firm at any given time, predicting the future value of a firm and to access the quality of corporate governance (work done) by the management by employing the value in the financial statement. Good corporate governance leads to better accounting ratios, can among other factors (economic and industry stability) result in higher firm value. Firm Value is created by the effectiveness of the management and the efficient use of resources within their disposal. Accounting ratios is the tool in the hand of accountant to determine the quality of governance operated by the management. Internal and external control is to mandate the director to always publish accounting ratios alongside with their financial report statement as part of note to the account.

Studies have shown that combining accounting ratios and corporate governance can make the prediction model perform better than using Accounting ratios alone (Liang, Lu, Tsai, and Shih, 2016:561). If comprehensive components of ratios are computed alongside with annual report, true picture of the company is shown to all stakeholders for inform decision making. From the structure above, accounting ratios is grouped into four parts for the purpose of this study namely: profitability ratios, asset or efficiency ratios, financial ratios and investment ratios. Financial ratios are sub-divided into two short term liquidity ratios and long term solvency or stability ratios and they tend toward achieving good firm value. Strong ratios all things being equal are a function of better firm value. In the findings of Karaca and Savsar (2012:56) they found a significant and positive relationship between financial ratios and firm value. The interaction of all these ratios will surely reveal weather going concern of the company is threatened or not and whether good corporate governance is in place or not.

3.4 Review on firm value

3.4.1 Firm Value

This is the dependent variable for this study and it is proxy by Tobin's q (Siallagan, 2006:1). The definition of firm value can be seen in different forms as it depends on the approaches. The simple meaning of firm value is the present value of the firm's operating cash flow over a period of time. It is also the measure of the firm's equity value and debt value. It is the product of outstanding equity shares of a firm by the share price of that firm. Company value can be seen from several approaches and there are several methods of business valuation. The Balance sheet approach sees company value from the value of its assets at the end of its balance sheet date. Another approach was the goodwill approach which values a company from book value plus goodwill. Brigham (1999:273) defines ''company value as the value given to the management of financial markets and corporate organizations as a company continues to grow''. The abovementioned methods of valuation are related and are merely different approaches to determine value. Other approaches are the dividend growth method and dividend valuation method. If all assets are correctly valued in terms of expected future returns, the different methods should give the same result.

Tobin's Q was used as a proxy for company value by (Yermack, 1996:185; Siallagan, 2006:1). Tobin's Q was defined ''as the ratio of book value of total debt plus the market value of equity divided by book value of total assets''. It should be noted that book value of the equity is also defined in this study as the product of outstanding shares and market value per share. (MVE+TDEBT)/TASET) Brigham (1999:273) and Wahyudi and Prawesti (2006:23) use a proxy ratio of market value to book value. This ratio was defined ''as the market value of equity divided by book value of equity''. Some also defined firm value as the weighted average cost of capital (WACC), the value of a firm is the present value of all the expected future cash flows to be generated by the assets, discounted at the company's weighted average cost of capital. From this, it can be seen that the WACC has a direct impact on the value of a business (De-Wet and Dhanraj, 2007:28). The choice of finance between debt and equity will determine the right capital structure that will maximize shareholders' wealth. WACC is used to define a firm's value by discounting future cash flows. Minimizing WACC of any firm will maximize value of the firm (Messbacher, 2004:1). Firm value can also be defined ''as a concept demonstrating the value of the firm purified

from the cash and cash equivalents and financial debts as regards the concept of market value'' (Ilgaz, 2010:56).

3.4.2 Approaches to firm value

There are four different approaches to firm value that have been identified in the corporate finance literature (Qureshi, 2007:24). They are: the financial management approach which focuses on the estimation of company's rate of cash flow and level of its investment before considering sources of financing and evaluating the impact it would have on firm value; The capital structure approach which studies the impact of debt and equity component of firm's capital structure. The capital structure of any organization is very important because it is what keeps the company running and the company sources of finance and its availability as and when due is also germane. If management need to keep their companies alive and firm value improving, there is need to guard their capital structure jealously. It has been fully discussed earlier in this study. The resource-based approach explained the firm value as an outcome of firm's resources. This approach sees that companies and their resources like types of assets, the employees and goodwill of the company keep actually determine their value in the market. Finally, the sustainable growth approach is the summary of the above three approaches taking into consideration the firm's operating performance, its investment and financing needs, sources, dividend policies for sustainable development. All these are expected for firm value of such company to be fully maximized.

3.4.3 Measuring Firm Value

There are many variables that have been used to proxy or measures firm value, as discovered in the literature. This study adopts Tobin's q method of business valuation because it combines both accounting-based measures and marketing-based measures. Another reason is that it tends towards a sustainable growth approach that combines of all three approaches as discussed above. It is a measures of firm value used in empirical research on corporate governance that combines both accounting-based measures and market-based measures (Kiel and Nicholson, 2003:189). Most commonly used accounting based-measures are return on assets (ROA) (Kiel and Nicholson, 2003:195), return on equity (ROE) (Baysinger and Butler, 1985:101) and earnings per share. The most commonly used market-based measures are market to book value ratio and Tobin's Q (Barnhart, Marr and Rosenstein, 1994:329). There is criticism about

accounting as opposed to market-based measures. Accounting-based measures can be manipulated easily by the management through changes of Accounting methods or accruals. They are difficult to interpret across industries because of different factors affecting different industries of different nations. They are historical in nature and reports are more on past success (Kiel and Nicholson, 2003:198), and it also does not take into consideration risks, time value of money and investment (Rappaport, 1983:28). Market-based measures are based on the value of companies' common stock, market capitalization and other factors. This involves risk-related performance (Daily and Dalton, 2003:371). They are considered forward looking and reflect current plans and strategies (Kiel and Nicholson, 2003:190). Owing to the above reasons, the study decided to adopt Tobin's q as a proxy of firm value.

3.4.4 Tobin's Q and Its Interpretation

This is a proxy for firm value measure by dividing year-end market capitalization which is referred to as market value of equity plus total debt divided by the book value of total assets. It is employed as the proxy for dependent variable of this study. Another definition to an economist, it is a theory of investment behavior where q is the ratio of market value of a firm's existing shares to the replacement cost of the firm's physical asset. It is interpreted that if q is greater than one ($q > 1$) additional investment is required because there is excess cash from profit generated from the activities of the year and would exceed the cost of firm's asset. If q is less than one ($q < 1$) it is better to sell off some old asset or outdated one instead of trying to put them to use. The ideal state here is where q is approximately equal to one or one which denotes that the firm is at equilibrium. When q ratio is between 0 and 1, it costs more to replace a firm's assets than the firm is worth. A q above 1 means that the firm is worth more than the cost of its assets. This is because Tobin's q premise is that firm should be worth what their assets are worth, anything above 1 theoretically indicates that a company is overvalued.

Another important thing about Tobin's q is that it is seen as a hybrid performance measure because it evaluates both market-based and accounting-based data and it is futuristic in nature (Gross, 2007: 23). Critics of the Tobin's Q ratio argue that its value is over-exaggerated, while replacement cost is underestimated (Chorafas, 2005:178). Dybvig and Warachka (2010:1) indicated that Tobin's Q does not measure financial performance sufficiently. However the fact still remain that Tobin's Q is mostly and commonly used because it measures, evaluate and combines both market-based and

accounting-based data and it is does not consider past cash flows and sunk cost such as other methods like ROA, ROE etc (Agrawal and Knoeber, 1996:377; Gomper, Ishii and Metrick, 2003:107; Hermalin and Weisbach, 1991:101). Bhagat and Jefferis (2002:1) defined Tobin q as a means of revealing company's strength by computing the ratio of the market value of assets to the replacement value of assets. It is considered that the higher the value of Q, the more effective are the governance mechanisms and the better is the market's perception of the company's performance. A higher Q shows how closely the shareholders and managers interests have been aligned, whereas a lower Q suggests greater managerial discretion (Weir, Laing and McKnight, 2002:579). Agrawal and Knoeber (1996:377) found a significant negative relationship between boards dominated by outsiders and firm performance based on Tobin's Q. Studies conducted by Hermalin and Weisbach (1991:101) in the US and Weir, Laing and McKnight (2002: 579) in the UK using Q-ratio, found no significant relationship between the proportion of non-executive directors and performance.

3.4.5 Return on Assets

This ratio measures the overall profitability of the firm in relation to the asset employed. This means it is a measurement of short term management performance. It is sometimes refers to as the return on investment (ROI). It is defined as the ratio of earnings to total asset. However, earnings can be defined in three different ways as defined earlier in this study above under classes of ratios precisely profitability ratios. The most correct definition is $\frac{NOPAT}{TOTAL\ ASSET} x\ 100\%$. The ratio tells the investors how well a company uses its assets to increase efficiency by generating income. A high level of this ratio indicate a higher level of management performance. Technically a company should produce higher ROA than the risk free rate of return. If it is equal or even lower investors should better opt for another investment. Some researchers also proxy Return on assets (ROA) for firm value. It is a measure of performance widely used in the corporate governance literatures for accounting-based measures (Finkelstein and D'Aveni, 1994:1079; Kiel and Nicholson, 2003:195; Weir and Laing, 2002:576). This study did not adopt this ratio as the dependent variable because it considered past cash flows, past data and not futuristic. However, it is employed the ratio as one of the explanatory variables of this study because sometimes past information is a good reference for future decisions. It measures how efficient are assets employed (Bonn,

Yoshikawa and Phan, 2004:105) and it shows investors how much earnings was able to generate from its investment on capital assets (Epps and Cereola, 2008:1135). Efficient use of a firm's assets is best reflected by its rate of return on its assets. ROA is an indicator of short-term performance which is calculated as net income i.e. net profit after tax (NPAT) divided by total assets (Finkelstein and D'Aveni, 1994:1086).

3.4.6 Return on Equity

Another important proxy of measurement of firm value or firm performance used in corporate governance prior research is return on equity (ROE) (Baysinger and Butler, 1985:101; Dehaene, De Vuyst and Oghe, 2001:383). It is also an accounting-based measure. The primary aim of an organization's operation is to generate profits for the benefit of the investors. Therefore, return on equity is a measure that shows investors the profit generated from the money invested by the shareholders (Epps and Cereola 2008:1135). It is defined as the net income divided by total equity. This study does not adopt this method because it also considered past cash flows, past data.

3.4.7 Earnings per Shares

This is the ratio of firm's net earnings to the number of ordinary shareholders. It is simply the company's net profit divided by its number of common outstanding shares. It can also be defined as the measurement of earnings in relation to every share in issue. Growth in EPS is very important because it is an important measure of corporate governance and management efficiency and performance. It shows how the company is creating wealth for its shareholders. It is a good measure of company's profitability and profit is a measure of short term growth of the firm. Although yearly growth in profitability would definitely lead to firm value creation. There are many prior studies that used this ratio as dependent variable to measure firm value or firm performance are many but few of them are examined below: Chandren, Ahmad and Ali (2015:344) found between EPS and board independence, Board size and CEO duality a positive relationship. Ayesha, Chathurika, Kumarihami, Sagarika, Senanayaka and Sewwandi (2015: 201) studied the relationship between corporate governance and EPS and found a significant relationship between the two variables. Al_Sufy, Al-Haddad and AlZurqan (2011:55) also found positive relationship between EPS, ROA and corporate governance. Azees (2015:180) also used EPS, ROA and ROE as dependent variables to represent firm performance and found no association with firm

performance. However, while other studies considered EPS as dependent variable, this study only employed it as one of the explanatory variables. This is because firm's growth must be closely monitored as to whether shareholder's wealth is kept or not or whether the firm is improving or not. In practice, high EPS indicates more value for the shareholders. This is because it encourages new investors to invest more when there is goodwill of making good profit yearly. A firm company with high EPS is capable of paying high dividend, investing more, or plough back for growth.

3.4.8 Market Capitalization

This refers to total monetary value of a company's outstanding shares. It is computed as the product of company's outstanding shares by the current market price of one share. It is otherwise known as the total value of all company's stock shares. For example, if a company's outstanding ordinary shares is 10million with a share price of #50 per share, the market capitalization is #500 million. The importance of this variable is enormous that is the reason this study employed it as one of the explanatory variables used. Other reasons are because it is a means of monitoring growth of the company. Growth in stock value of a company would definitely attract investors and later boost value of the firm.

Loltianya (2012:1) revealed that it is also a means of daily monitoring of price fluctuation on the stock market which provides all information about the health of the publicly traded company and determine the public consensus of company's value. This is in accordance with efficient market hypothesis theory that says that stock price can reveal all information about the company's history. He also posited that market capitalization is important because it can reveal the future cash flow, it associated risk and the expected return to the shareholders. Prior studies along this line are Loltianya (2012:1) who found a weak relationship between market capitalization and banks performance. Al-Mubarak and Hamdan (2016:121) found between corporate governance variables and market capitalization a positive relationship.

3.4.9 Growth

Growth can be defined in different ways. It is when a firm generates continuous positive earnings, which increases at faster rate than the overall country's economy. There are so many characteristics of a growing company and they are: yearly growing in profit, high EPS, high retained earnings, High dividend payment, profitable investments, high goodwill, Expansion, diversification, value

creation and capital appreciation. It can be calculated in different forms by market capitalization, by increase in sales revenue, by increase in assets, by increase in profit and by value appreciation however approach one looks at it. However, this study used sales revenue approach because market capitalization had been adopted as one of the explanatory variables. For the purpose of the study, growth was computed by looking at the difference between preceding year sales and that of current year sales divided by the current year sales to arrive at the growth rate. The important or relationship between corporate governance and growth is that corporate governance is expected to improve accountability of any firm and supposed to avert any form of problem or failure before it occurs. Case of Enron and Worldcom, the employees and the shareholders are very good examples here for the importance of good corporate governance. Growth can also be measured as an ability of the company to meet every short and long term financial commitments. Research in this area is Yoo and KIM (2015:15982) revealed that high growth in the preceding year foster performance in the current years. Batchimeg (2017:22) also found a positive influence between growth in sales and firm performance.

3.4.10 Profitability

Company profitability is an important aspect of a business and it is the objective of every profit oriented business. Yearly growths in company profitability lead to creation of firm value in the long run (Khan and Khokhar 2015:1). Profitability is the company's ability to generate net income from all activities undertaken in an accounting period. Profitability can become an important consideration for investors in their investment decisions. Investors and managers use profitability as a basis of measuring company's performance. Companies that can earn high profits can be said to be successful, or have a good financial performance. This is in line with profit maximization objective which is the company short run objective. Profitability is the end result of a company policy and decision management (Brigham and Gapenski 2006:1). Profits are the basis of dividend distribution, whether cash dividends or stock dividends. Hermi (2004:247) revealed that profit is obtained from difference between the incoming treasures (revenue, gain and profit) and outlay (capital, expenses and losses). The profit of company can be held (retained earnings) and can be divided (as partly retained and partly paid as cash dividend or stock dividend). Higher net profit increases the return on investment in form of dividend distributable income to investors which will increase the firm value in the long run.

Dave (2012:124) and Enekwe (2015:20) defines profitability as an ability to generate profit from all the activities of the organization, company, firm, or an enterprise. It shows how efficiently the management can make profit by using all the resources available in the market. However, the term profitability is closely associated with efficiency of the board of directors and management. Although profitability is an important yard stick for measuring the efficiency yet a proper degree of efficiency can take place without profit. It can simply say that net profit figure is the different between the values debited and the values credited. Carole (2012) defined profitability as the excess of revenue over the expenses of the business in the same period. A profitable business may be in a weak financial position and a business with a strong financial position may not be profitable. This is the major reason why financial statements must be critically examined and valued with various ratios before good firm value can be created.

Accounting ratios has been a major tool to check how efficient and profitable a business is by computing both past and present year. It gives a general idea of profitability ratios, utilization ratios, financial ratios and investment ratios over the period of time.

Khan and Khokhar (2015:1) states that profitability ratios show how much money company earns compares to the total amount shareholders invested and the amount of debt. Emekekwue (2008:1) argues that profitability of a firm depends on several factors such as government policy, political activities, competitive position of the firm in the industry, union actions with regards to salaries and wages etc. A firm has several objectives but "profit maximization" is said to be paramount among these (Damilola, 2007:1). Mostly profit is seen to be the basic tool of allocating resources efficiently because it is a primary measure of corporate performance. Operationally, the term profit varies in accounting it could be referred to as profit before tax, profit after tax, gross profit, net profit, earning per share, return on assets, and return on equity among other variants (Egbidi, 2009:44).This makes it difficult for researchers to choose an appropriate method to proxy profitability. However, the most commonly used methods as appropriate measure of profitability includes gross operating profit (GOP), net operating profit (NOP), return on assets (ROA) and return on equity (ROE) (Tervel and Solano, 2007; Deloof, 2003:573 and Raheman and Nasr, 2007: 279).

3.5 Corporate governance, Accounting Ratios and Firm Value

The combination and interaction of corporate governance and accounting ratio tend towards increasing firm value. This is because accounting ratios are used to detect and determine the value of any firm at any given time, send signals to all stakeholders, predicting the future value of a firm and to access the quality of corporate governance (work done) by the management by employing the value in the financial statement. Good corporate governance leads to better accounting ratios, can among other factors (economic and industry stability) rebuild in higher firm value. Firm Value is created by the effectiveness of the management and the efficient use of resources within their disposal. Accounting ratios is the tool in the hand of accountant to determine the quality of governance by the management. Another way to maximize firm value is an integration of strong internal and external control mechanisms which allow shareholders to exercise appropriate oversight of a company to maximize firm value and ensure that it generates a return on their investment (Wu, 2009:1). Part of internal and external control is to mandate the directors to always publish accounting ratios alongside with their financial report statement as part of note to the account. Studies have shown that combining Accounting ratios and corporate governance can make the prediction model perform better than using Accounting ratio alone (Liang, et'al 2016:561). Wu (2009:1); Altman (1968: 589) and Ohlson (1980:109) also suggested combination of corporate governance and accounting ratios for better prediction. Factor analysis was used to select 6 accounting ratios categorized under solvency, profitability, and turnover while 10 corporate governance indexes were chosen from the ownership and board structure. Lin et al. (2011: 416) used an exhaustive search method to select 4 and 6 accounting ratios and corporate governance out of 23 and 42, respectively. They showed that with the chosen corporate governance index the prediction model (based on the support vector machine) provided higher prediction accuracy. In particular, the chosen accounting ratios belonged to the solvency and turnover categories, and the chosen corporate governance indexes were in the board structure, ownership, and cash flow rights categories. Therefore, combination of accounting ratios with reliable accounting information, transparency, and accountability and with good corporate governance will have a long run positive effect on financial reporting of any firm. What can adequately increase the robustness of financial reporting of any firm is to employ a model combining corporate governance, accounting ratios and firm value and to enact more robust rules to ensure transparency, adequate disclosure and accountability of governance in the corporate regulations.

3.6 Model on corporate governance, accounting ratios and firm value

Fig 3.4 depicts how firms create and sustains value through corporate governance and accounting ratios by incorporating business model into a structural equation model (SEM). This model combines all the three variables together and also addressed the primary objective to the study. This is the general modelling framework that integrate different numbers of multivariate techniques into a model that fit a given scenario. The study therefore combines multiple regressions simultaneously from corporate governance variables and accounting ratios variables which was later presented in chapter five of this study. Path analysis which is one of the techniques of SEM was employed to present figure 3.3 below.

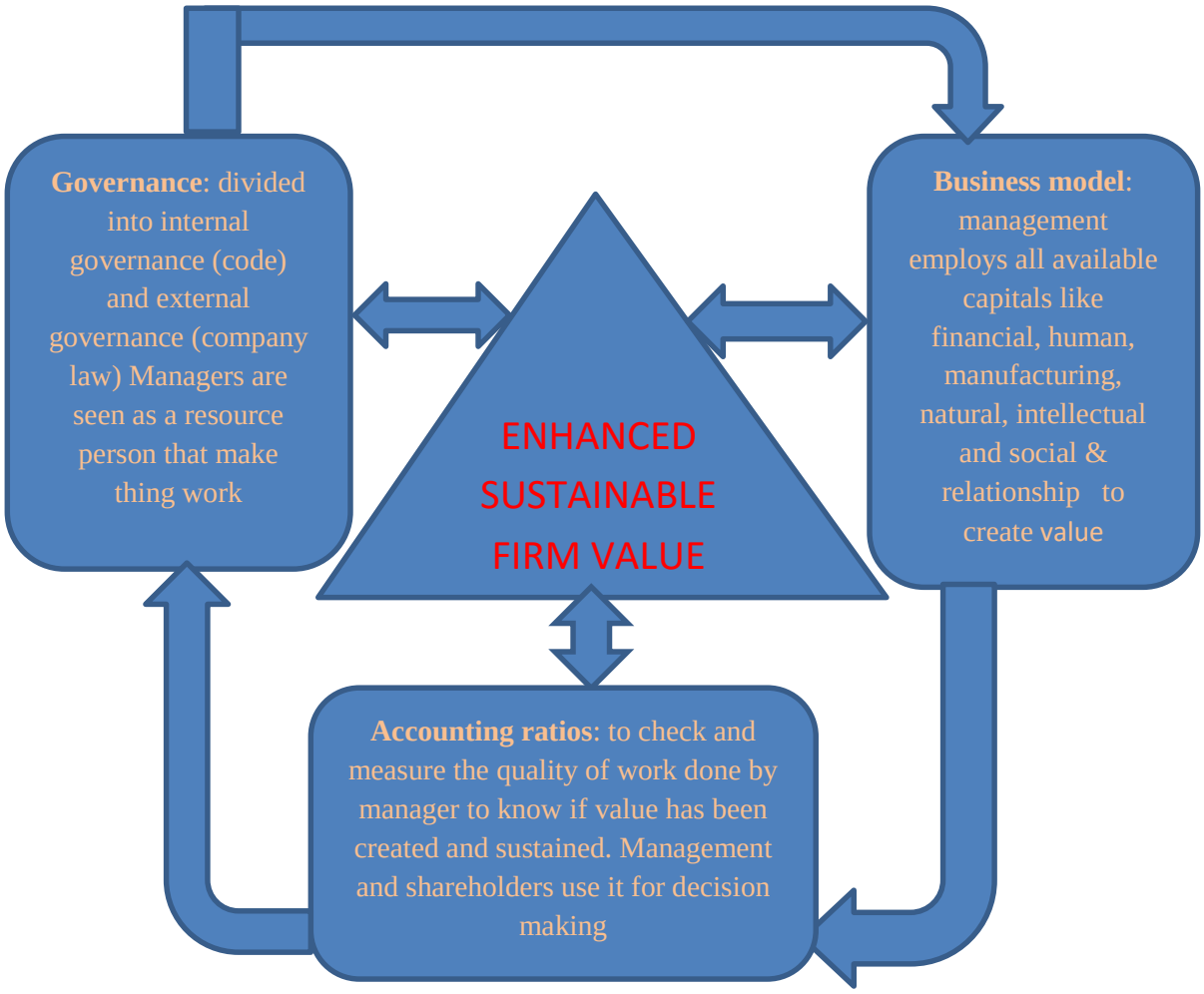


Figure 3.3: Corporate governance, Accounting ratios and firm value creation and sustainability model

Source: Author's Research, (2019)

As the world turns into a global village and the business environment is getting congested, gap between shareholders and managers become widen and posing more risk to investors than before. This is because corporate governance is not limited to shareholders-agent relationship and management of conflicts anymore. It has now advanced to where shareholders seek transparency, accountability, improved investor's confidence and also creation of more values and sustainability of value created by the firms over years. However, there are several risks associated with managers managing companies on behalf of shareholders such as risk of taking decisions that are not in support of companies' overall objectives, risk of performing below shareholder's expectation and risk of conflict of interest etc. In the bid to reduce all these risks, shareholders are forced to incur extra costs. Managers also try from their end to see what can be done to minimize or eradicate these risks so as to boost investor's confidence by align their personal goal with the overall goal of the company (goal congruence). For this purpose, this model has been created to bridge the gap between the chairman, CEO, CFO and other manager of the company, the shareholders and other investors. The motivation of this model is to proffer solution to why some promising companies failed and inability of companies to sustain created value over years. The workability of the above model depends on human capital which does not only limited to board of directors and other management members alone but all other members of the employees working together as a team to achieve a goal.

The model above depicts how firms create and sustains value through corporate governance and accounting ratios by incorporating business model. The internal structure of the model is mainly divided into three corporate governances, accounting ratios and business model. It starts from corporate governance since it has been proven that good corporate governance is an important factor that improves firm value (Chen and Jia, 2007:1, Baba, 2013:1). It has also been proven that structure of corporate governance is directly related with a company's success or failure and it plays an important role in value creation and improvement of present and future status of the companies (Hassas Yeanch, 2005:866, Fazin Rezae, 2002:865). However, this model sees the need to incorporate business model and accounting ratios as a link for managers to reduce the risks listed above, create more value and sustain value created over years. This is because of incessant failure of promising and big corporations around the world which has been calling for serious attention from researchers and other academic bodies for solution. It is also a model that can protect

accounting profession generally. This model linked up corporate governance and accounting ratios models already discuss above together. Although corporate governance differs in different countries due to disparate corporate governance structure resulting from dissimilar social, economic and regulatory bodies of countries yet the researcher is sure that the model can provide solution to lingering issue on corporate governance if local company listen rules are followed (Gupta, Kennedy and Weaver, 2009:293). The study believes that this model may solve different economic problems that relate to firm's corporate governance if strictly followed (Pourari and Arasteh, 2013: 943, Dittmar and Mahrt-Smith, 2005:599, Oesch, 2011:1; Qesari and Ahmadi, 2016:101, Ene and Bello 2016:103, Abdur Rouf, 2011: 790; Tornyeva and Wereko, 2012:100). The importance of this model is the need to align agency cost conflict with accountability and transparency of corporate executive directors and their management so that it would increase performance and later lead to value creation and value sustainability. It also has connection and attachment to the economic growth and development of nations.

3.6.1 Interpretation of the model

The model links up with other models earlier explained that depict how corporate governance improves firm value and how accounting ratios enhances firm value. Recall that it was divided into external and internal governance and that the external governance are the regulatory bodies that governed different countries while the internal is the corporate governance code. The combination of both company law and the listen rules gave birth to corporate governance code through SEC. The code serves as a guide for internal governance. These bodies and federal reporting council (FRC) ensure compliance at all level for the implementation of the code. All these must be ad-here to according to the dictate of the code for good corporate governance to be in place. This can only take place when there is strong compliance and disclosure of items in the financial statement.

This then lead to business model where management employs all capitals available within the firm to create value by converting them into products and services. This is also supported by International Integrated Reporting Framework (IIRF 2013:5). The capitals are human capital, financial capital, intellectual capital, manufactured capital, natural capital and social and relationship capital. All these capitals must work together for company to attain and sustain its maximum value. Financial capital refers to means of financing through debt or raising equity

capital or from business operations or even combination of the three sources of finance. The managers must be very careful here because of the sources of finance to adopt for instance if it is debt finance, it must be strictly used for its purpose. This is because debt may change the company's capital structure thereby reduces EPS or ROE in the short run and there increase them in the long run. Here the availability of the investment opportunity would determine the choice of finance to adopt. However, whichever sources adopted it must be adequately monitored and controlled for the company's value to be enhanced. Manufactured capital includes physical objects such as building, plant and machinery. This must also be regulated so as not affect ROA negatively. Assets of the company must not be obsolete, must be standard to compete with other competitors and adequate to meet the demand of the targeted production. Intellectual capital consists of right and license, patent, copyright. These are valued assets that must be maintained and guided jealously over years for company's not to lose its goodwill. Human capital refers to Resourceful managers, CEOs and other board of directors, competent employees, experience and capability of employee. This capital is very important because it manages and put other capitals in control and on motion. Without these capital other capitals cannot exist. Companies therefore must employ those that are competent in terms of experience to fill every vacant position and try to reduce labor turnover to the barest minimum. Social and relationship capital include ability to share and relate information between or among stakeholders. There should be love, harmony, ethical skills and good relationship in every organization that are working to achieve the same goal and objective. Natural capital refers to renewable and non- renewable resources such as mineral, land, forest, air, water etc. There should be good procurement structure of company raw materials for production and provision of other resources that can provide suitable working environment for all workers. A company is expected to employ all these capital as input and convert them into products and services (Carlos et al 2019:502). According to IIRC (2013:5) stated that a company must be strategically strategic and be future oriented for firm to be able to create value in both short, medium and long run by employing all the capitals.

This leads to the determination of the quality of reporting and determination of quality of work done by the management through analysis of the financial statement. This can also be done through qualitative analysis and quantitative analysis. The qualitative can be derived from the chairman's CEO and CFO's report which would also involve whether good corporate governance is in place or not. Of course, it has to be substantiated by quantitative analysis which would be revealed by

the quality of accounting ratios derived from such published financial statement. Strong accounting ratios all things being equal are a function of better firm value which is a product of good governance. The results from analysis of these ratios would surely reveal weather going concern of the company is threatened or not, whether good corporate governance is place or not or whether value had been created or not and whether the value created would be sustained or not. The relationship between accounting ratios within the context of value creation, detection and sustainability is therefore revealed and conceptualized by the definition of ROCE, ROIC and ROA which is supported by EVA. These accounting ratios help in determining whether value had been created through firm's operation or not. The decision is therefore according to Carlos et al (2019:524) if ROCE, ROIC or ROA exceeds WACC it then means that, what the firm generated from investment is greater than its invested capital that would need to pay back to the debt and equity holders and it then means value had been created. If otherwise when WACC exceeds ROA, ROCE and ROIC, it is a serious and bad signal to the firm because value has been destroyed.

Summary of this model is that board and management of an organization make sure good governance is in place to enhance and create firm value. They also employ company's capitals to create and enhance value while accounting ratios help the management and other investors to enhance, detect and monitor value created by the management so that such value can be sustained over time.

3.7 Chapter summary

This chapter clarified the meaning of various concepts that enhances the understanding of this research starting from the definition of corporate governance, accounting ratio and firm value to the dynamic interaction of the three concepts to achieve the stated objectives. Various concepts discussed in this chapter are:

-Corporate governance definition was looked at from two approaches: a narrow and a wide approach.

-The interaction of corporate governance mechanisms mitigates principal-agent conflict and bring about good corporate governance.

- That Nigeria has harmonized and unify the sectoral corporate governance code to 2016 national corporate governance code which is a modification and unification of 2003 code of corporate governance and other codes.

- Research also shown that well governed firms have higher firm value with the help of accounting ratios as a tool in the hand of the manager especially poor accounting ratios in the preceding year signals to management and board of directors to take corrective measures in the current year.

-That both corporate governance and accounting ratios can be used to guide against corporate failure by employing Multivariate Discriminant Analysis of Altman Z score models.

- A model was formulated that depicts how good corporate governance improves firm value under three different scenarios with the help of accounting ratios as a tool and company's capitals.

- Tobin's q is computed as the product of share price and outstanding shares plus total debt divided by total asset and represents firm value for the purpose of this study.

- Accounting ratios are grouped into four types- profitability ratios, asset utilization ratios, financial ratios and investment ratios.

- Accounting ratios are an indicator for efficient performance of the directors and other managements and serves as a signal to the managers to take measure that improves the value of the business.

- Good corporate governance leads to better and improve accounting ratios especially through the use of integrated report and can among other factors result in higher firm value.

-This then lead to where management employs all capitals available within the firm to create value by converting them into products and services.

- The integrated report through the use of business model should be encouraged because it would not only create value but also sustain value created. This is because sudden distress of some promising firms in Nigeria could be as a result of not been able to sustain their value over time. Therefore, business model with the use of company's capitals is a means of value sustainability.

In conclusion, considering the impact that corporate governance and accounting ratios have on firm value, corporate governance leads to higher firm value and better accounting ratios. However, accounting ratios is an indicator that helps managers to take rightful decisions that improve firm value. Therefore, the impact of corporate governance, accounting ratios on firm value is felt by increasing firm value.

CHAPTER 4: APPRAISAL OF THE EXTENT TO WHICH SELECTED LISTED FIRMS COMPLY WITH 2016 NIGERIA NATIONAL CODE OF CORPORATE GOVERNANCE.

4.1 Introduction

The poor performance of corporate governance in the past led to the sectionalizing or proliferation of code of corporate governance in Nigeria and this also contributed to the crash of the capital market in 2009 (Demaki 2011:1). Before this, it was discovered that firms were overvalued on the floor of the stock market. Shortly after this so many companies were devalued and crashed. Companies' stock price that were been sold for #100 per share became #20 per share or even below. The performances of those firms were at its worst. This led to many investors losing their investment worth of millions of naira, increasing hypertensive patients in the hospital as well as death rate. Since then researchers and other interested parties have been looking for the way out. Now good corporate governance in Nigeria which is one of the ways out of this problem is seemingly far from perfect as companies' stock value is still increasing at reducing rate. The reason for this incidence could be as one of the side effects of the financial scandals resulting from mismanagement and misappropriation of fund in USA in 2002 which later led to economic meltdown (Quadri 2010:5). The effect of the incident is still evident. Another factor that led to the crash in the capital market of Nigeria in 2009 was gross mismanagement in the government sector and private sector of the economy. Very good example was the case of mismanagement in the intercontinental, oceanic banks and president Abacha loot which led to losses in share value of companies and consequent loss of shareholders' confidence and finally resulted to merger and acquisition as a means of survival. Another effect from this was emergence of different sectoral codes of corporate governance that came out with intention to offer a solution to corporate governance in Nigeria.

A large numbers of studies on corporate governance practices Haniffa, and Hudaib (2006:1034); Hart (1995:678); Hermalin, Benjamin, and Weisbach Micheal (1991:101); Babatunde and Olaniran (2009:330); Oyejide and Soyibo (2001:30); Anderson, Mansi, and Reeb (2004:315) have been carried out in both developed and developing economies in order to improve governance system. It was found out that most studies focused more on the relationship between characteristics of corporate governance and their consequence on performance. One aspect that needs to be

thoroughly researched and dealt with in the literature is studies on the level of company's compliance to their national codes. In Nigeria there is no clear evidence as to the level of compliance with corporate governance mechanism as entrenched in the 2016 code of best practices by listed firms in Nigeria. Although the level of compliance to the 2003 code of governance was encouraging but the major impediment was the sectional nature of the codes and firms were struggling when the codes clashed in terms of decisions. The 2016 code of corporate governance is a new code that came to light because there is a need to combine all sectoral codes of corporate governance in Nigeria. It has been proven in Nigeria that studies on corporate governance dwell on specific corporate governance and not overall component. Thus, part of this study is motivated and provided theoretical evidence needed for this study.

Compliance with the Disclosure and legal requirements represent the pillars of corporate governance. Improper compliance with these requirements are part of the reasons for the world's major corporate scandals. Different stakeholders use corporate disclosure in their decision-making process. Disclosure is defined in the accounting literature as "informing the public by publication of financial statements of a firm" while compliance with either legal requirements or disclosure requirements is to disclose in line with the guidelines of the various bodies. Kurawa and Kabara (2014:21), Adekunle and Asaolu (2013:157) stated that corporate disclosure requirements fall into two broad categories: mandatory and voluntary. Mandatory disclosure are commanded by laws and regulation to be strictly adhere to while voluntary disclosure are free choices by managements. (Abdelkarim and Shahin, 2009:1).The importance of disclosure requirements practices by companies is guided by the governing bodies that provide the information to be disclosed by a company. It helps in terms of regulating the relationship that exists between a firm and its environment and other stakeholders. Thus, the quality of disclosure is determined by the pressure of the company's environment (Shehata, 2014:18).The fear is that as accounting standards kept increasing in numbers voluntary compliance becomes more complex, as the notes to the financial statements of some companies' have grown to include hundreds or even thousands of disclosures (Oluwagbemiga, 2014:263).That led to fears of information overload in the note to the financial statement, as well as triggers the discussions among accountants and regulators about ways to streamline disclosure requirements.

4.2 Theoretical framework on voluntary compliance with the Nigeria Corporate Governance

Managers tend to disclose information at the end of a financial year about their performance of their companies. Managers also plan the time a certain news could be disclosed due to the nature of it. For instance, managers are eager to disclose good news than bad news for either to maximize their compensation or to avert litigation. However, the threat of litigation due to inadequate disclosures can also motivate managers to provide voluntary disclosures to reduce the cost of litigation. This is in line with the Litigation cost theory as discussed earlier (Skinner, 1994:38).

4.3 Extent to which selected firms comply with the 2016 Nigeria Corporate Governance code

The 2016 Code of Corporate governance is a new code that blends and combines all sectional codes together to a national code of corporate governance. This makes compliance easier than when it was sectionalized. Every organization, whether it is private or public, looks forward to satisfying their stakeholders at large through publishing good and quality annual reports (Adesina, Ikhu-Omoregbe and Olaleye, 2015:2). An aggressive way is by trying to operate in a way that makes all users or stakeholders appreciate them by publishing good and quality reports through window dressing. This is one of the things that leads to sudden failure of promising corporations or why many could not sustain the value they have created over their past years. Good quality disclosure, as well as compliance, is one of the answers that can stop the sudden failure of companies. The extent and quality of disclosure within these published reports vary from company to company and also from country to country. This is because of differences in the regulatory system, enforcement and the government policy of different countries which can affect that. According to Aina (2013:21), the level of reliability and adequacy of information by listed companies in developing countries lag behind compared to developed countries because government regulatory enforcement agents are less effective in driving the enforcement of existing Accounting standards. Osisioma (2001:40) also posited that none or inadequate disclosure results from immature development of Accounting practices in developing nations. “In the Nigerian context, the World Bank Group conducted comprehensive studies of Nigerian listed companies. It was observed that the Nigerian financial reporting practices are deficient” (World Bank 2004). Apart from the studies conducted by the World Bank, disclosure practices by Nigerian companies

has been empirically investigated (Ebiringa and Kule, 2014:105). Their observation is quite similar to that of World Bank. It was found that Nigerian corporate reporting practices are weak. Adelopo (2011:338) also agrees that Information disclosure by Nigerian firms are weak because influencing factors have not been sufficiently and adequately investigated. Adekunle and Asaolu (2013:157) stated that corporate disclosures can be in two forms: mandatory or voluntary. Mandatory disclosures include information that is disclosed based on legal and regulatory authority instructions in the country (such as Security and Exchange Commission, Companies and Allied Matters Act). Owing to the above review, the attention of researchers has shifted to the impact of corporate disclosure on the value of the firm (Hassan and Marston 2010:1). In Nigeria, Aina (2013:21) stated that the need for better transparency and accountability have remained a high priority for policy-makers. The Security and Exchange Commission (2012) noted that "some of the standards set up to regulate corporate governance code are not sufficient to address the transparency, accountability and value sustainability issues of listed Companies". This led to the development of several sectoral codes of corporate governance in Nigeria.

In conclusion, the level of compliance with the 2016 National Code of corporate governance is considered to be new so far but the extent of listed company's compliance is more encouraging than it was before, especially in 2018 reports of those companies under review. However, before now was the 2003 code of best governance, the compliance was low because of sectoral codes and contradictory reports and views of some codes. This made the extent and rate of compliance to the 2003 best practice weak at that time, but the advent of a consolidated 2016 National code of corporate governance improved the rate of compliance and disclosure.

4.4 Linkage between Voluntary Compliance or Disclosure and Nigerian Corporate Governance Disclosure or Compliance (NCGC)

Apart from all mandatory information which is expected of companies to comply with during the preparation of their financial statements, all other voluntary information that can help all users of financial statements is also important as well. Voluntary information that is material to the company are as important as mandatory information (Zeng, Xu, Yin and Tan, 2012:311). Voluntary information is a disclosure which is based on information disclosed based on a firm's free will and such decisions can be either financial or non-financial in nature. Managers need to disclose all other material information so as to help stakeholders that need related information for

better understanding of the report and for an informed decision (Damagum and Chima, 2013:168). According to Chima (2012:166), a good financial report must not only be compliant to mandatory disclosure to provide users with mandatory information, but also to go extra miles in providing Voluntary information disclosure so as to meet the needs of different categories of stakeholders. UNCTAD (2011) therefore defined corporate governance compliance or disclosure as the extent to which an organization transparently disclosed or complied with its governance practices and strategies to stakeholders. The amount of voluntary disclosure and compliance over and above mandatory compliance or disclosure with the code of corporate governance determines the quality of the financial statement and is what determines the financial statement adequacy or level of compliance. Adequate disclosure is very important because it enhances good corporate governance (Adefemi, Hassan and Fletcher, 2018:68). This in turns improves a firm's reputation and is a good signal to investors, both foreign and local. Adina and Ion (2008:1407) also corroborated that all relevant information either voluntary or mandatory should be made available for shareholders and other stakeholders.

The linkage between voluntary compliance and NCGC therefore is that voluntary compliance reduces information symmetry and closes the gap between the company in question and the stakeholders. A Quality annual report is the medium through which this gap can be closed. The needs for voluntary compliance or disclosure are eminent and enormous. It is ascribed to the need, to meet other categories of users, primarily for investment purposes (Damagum and China, 2013:166). Berndt and Leibfried (2007:394) stated that for the past years, financial reporting has been the core element of corporate governance. Therefore, improvement in voluntary disclosure over and above compliance to mandatory disclosure enhances transparency, accountability of the financial statements and sustainability of the company's value. Increase in voluntary disclosure in relation to corporate governance compliance on the financial report protects, strengthens shareholders, sustains firm value and increases investor's confidence. According to Emmanuel, Uwuigbe, Teddy, Tolulope and Eyitomi (2018:13), corporate governance compliance, voluntary disclosure and quality of financial reporting are interwoven. The minimum aim of financial reporting is to produce high quality information through compliance and disclosure. Good corporate governance is part of the objective that ensures publication of quality financial reports especially after world scandals of Enron, Worldcom and Parmalat. Cases of failure in Nigeria have

been link to poor financial reporting and weak corporate governance practices, for example Cadbury Nigeria, Africa Petroleum, Lever brothers (now Unilever Plc) and banks like Oceanic bank and Intercontinental bank.

4.5 Financial Accounting Information

Financial accounting information is very vital to all stakeholders because it is the product of all financial information of the year that signals to the public. Financial statement is the main source of the financial accounting information from which information flows. The management of companies must prepare financial statements in accordance with principle laws and other relevant codes in other to make accounting information relevant. According to Adesina, Ikhu-omoregbe and Olaleye (2015:5), the compiling of financial statements is a reporting system that measures the quantitative data concerning the financial position and performance of listed and quoted companies. Therefore, proper disclosure and compliance is inevitable in order for management to render their works of stewardship to be authentic. Complete audited financial statements includes: Statement of financial position, statement of profit or loss, cash-flow statements, statement of changes in equity and notes to the financial statements along with supporting disclosures. These elements make up financial statements, which are the major sources of firm-specific information available to investors, regulators and other users of financial accounting information. Good corporate governance enhances the quality of financial information and, among other things, improves firm value. The board of directors should be able to develop and maintain good and sophisticated financial disclosure in respect of compliance to all disclosure requirements that will enhance the true picture of that organization. They should further disclose all rules and regulations of the code of corporate governance and the listing rules which are referred to as internal and external rules in this study. Highly developed security markets devote substantial resources, using extensive accounting and disclosure to rules to regulate publicly traded firms. Resources expended are not only financial, but also include opportunity costs associated with the development of highly educated human capital, including accountants, lawyers, academicians and politicians (Adesina, Ikhu-Omoregbe and Olaleye 2015:5). In their article, they reported that in the United States, the SEC, under the oversight of the U.S. Congress is responsible for maintaining and regulating the required Accounting and disclosure rules that firms must follow. In Nigeria, the bodies that are responsible for these are SEC, CAMA and CAC.

4.6 Disclosure/Compliance and Accounting information quality

Accounting policy, choice and other controls by the management of an organization affect the quality of accounting disclosure and the communication between firms and users of accounting information. Overall, accounting policy choice, compliance and disclosure can be regarded as part of the contracting process of achieving good quality accounting information. The disclosure or non-disclosure and rate of compliance with certain accounting information also affect the financial position of firms. Such information would be useful for the accounting standard setting process, particularly with regards to whether more frequent and stricter financial reporting should be imposed (Latridis, 2008:219). For instance, cases where managers influence the reported earnings in order to maximize their interests, such as to improve their reputation and reinforce the stock returns and their compensation plans can negatively affect the financial position of the company (Bhagat and Bolton, 2014:313). Managers also tend to influence and window dress their accounting numbers in order to meet their financial obligations and abide by the debt covenants that are set by lenders (Lambert et al, 2007:385). Therefore, the quality of information is a direct link to the extent of compliance and disclosure especially when the information is not distorted by the management. The quality of financial information and their disclosure depends significantly on how well the financial statement is prepared within the context of financial reporting standards on the basis of which the financial information is prepared and reported.

4.7 Financial Accounting Information Disclosures

Enterprises should disclose their financial and operating results within the time frame. One of the major responsibilities of the board of directors is to ensure that shareholders and other stakeholders are provided with high-quality disclosures on the financial and operating results of the entity that the board of directors has been entrusted with. “Almost all corporate governance codes around the world, including the OECD, specifically require the board of directors to provide shareholders and other stakeholders with information on the financial and operating results of a company to enable them to properly understand the nature of its business, its current state of affairs and how it is being developed for the future” (OECD, 2010). Enekwe (2015:25) argues that the quality of financial disclosure depends on the robustness of the financial reporting standards, as well as corporate governance.

4.8 Corporate governance compliance

Good corporate governance can be attained through strong disclosure and strong compliance to rules and are essential features of monitoring corporate governance conduct. Strong disclosure is not only a powerful tool for influencing the behavior and performance of companies, protecting investors but also helps shareholders to effectively exercise their voting rights. It can also help to attract capital from investors and maintain confidence in capital markets. Shareholders and potential investors require access to regular, reliable and comparable information in sufficient detail for them to assess the performance of management and make informed decisions about the valuation, ownership and voting of shares. Adesina, Ikhu-Omoregbe and Olaleye (2015:7) stated that strong disclosure also helps improve public understanding, while strong compliance reduces litigation cost.

4.9 Financial Statement Disclosure

Stakeholders depend on the annual reports of companies for information needs and for performance information source. Disclosure is a medium through which the items in the financial statement could be robust and this is very germane to all stakeholders, especially the shareholders of companies. Information disclosed in the financial statements must be enveloped with qualities such as timeliness, relevance, adequacy and must be surrounded with integrity. All these qualities come together to improve the value of the firm. Therefore, companies must be ready to disclose any material issue surrounding the reporting, either mandatory or voluntary. It has been proven in the literature that adequate and quality disclosure of Accounting information meets the needs of users (Adesina, Ikhu-Omoregbe and Olaleye, 2015: 6). Information users evaluated the company's level of disclosure, whether poor and weak, when compared with levels of compliance and the quality of financial disclosure (OECD, 2010).

4.10 Literature review on the level of compliance and disclosure- theoretical objectives of this study

Akinloye and Olasanmi (2014:13) evaluated corporate governance practices among selected non-financial quoted firms across industries and analyzed the level of compliance with the 2003 code of best practices in Nigeria. A data set on corporate governance mechanism was obtained from the firm’s annual reports and the website of the firms, and analyzed using survey and descriptive

methods. They employed corporate governance index and ranked the firms under review according to the index. The results showed that firms had a compliance rate of 72.15% and growth of 5.83% in 2003 and in 2010.

Demaki (2011:1) carried a survey on disparities in the provision of the key element of firm-level governance arising from the Sectionalizing of codes of corporate governance in Nigeria and it negative impact on the economy. The result revealed a negative effect on the economy and therefore recommended harmonization of all the sectorial codes for better governance, economic growth and development.

Kurawa and Kabara (2014:21) examined the impact of corporate governance on voluntary disclosure by firms in the downstream sector of the Nigeria petroleum industry from 2001-2010. Secondary data generated from annual reports were regressed and analyzed employing descriptive statistics and STATA as a statistical package. The result revealed that ownership concentration and the extent of voluntary disclosure are positively and significantly associated while board composition shows positive but insignificant association. Managerial ownership and CEO duality are inversely related with voluntary disclosure of the sampled firm.

Oluwagbemiga (2014:263) investigated the effect of voluntary disclosure on investor decision and performance of listed companies in Nigeria. Primary data was adopted by administering 140 questionnaires as data instrument using exploratory design and SPSS 20 as the statistical package. Findings revealed that there was increase performance and investor's decision making was made easy through voluntary disclosure.

Ejuvbekpokpo and Esuike (2013:53) examined corporate governance environment of operations enforcement of corporate governance codes in Nigeria. A survey method was employed and he suggested that corporate governance should be made compulsory, enforced for both listed and public companies. He also posited that shareholder and investors should be assured of protection against manager's operations.

Adesina, Ikhu-Omoregbe and Olaleye (2015:1) assessed the relationship between corporate governance, financial Accounting information and disclosure requirement of listed firms in Nigeria. A survey method of analysis was employed to analyze the data. The result indicated that

there were variations in the way an information is being perceived by users as it is a function of the disclosure requirements available.

Ali Sharrif and Kamaluddeen (2016:1) examined ownership concentration and voluntary disclosure of firms in the oil sector of the Nigeria petroleum industry from 2001-2010. Secondary data was retrieved from the annual reports of the sampled companies and the Nigeria stock exchange fact book and analyzed using SPSS version 20. The result revealed that ownership concentration and the extent of voluntary disclosure are positively and significantly associated.

Marshall (2015:1) reviewed the corporate governance code (historical development and practices) in Nigeria and in conformity with international best governance practices. The paper adopted a doctrinal method where the relevant primary and secondary sources were utilized. The paper revealed that though CAMA is the principal law regulating companies in Nigeria and other regulators like corporate governance practices through various codes added to the governance strength in Nigeria. He recommended that FRCN should collaborate with other regulators for effective National code of corporate governance.

Kunle Aina (2013:21) studied code of corporate governance in Nigeria and its effect on the board structure, the role, effectiveness and duties of the non-executive directors (NEDs). The result was that the regime of compliance and regulation is extremely weak and a case is made for a specialized regulator agency to monitor compliance with the codes, upgrade standard. He recommended harmonization of the different codes.

Marai, Elghariani and Parlovic (2016:63) studied the practices and effectiveness of Saudi corporate governance code. The finding revealed an increase in the level of the compliance by listed companies from 2009 to 2014 and that the provision of Saudi corporate governance code is adequate. However, it was revealed a weak enforcement and that the code had an insignificant impact on company's performance and mitigating earning management due to its early stage. Ferdeous (2013:1) examined the level of compliance and its influencing factors in Bangladesh. Primary data was employed with the help of questionnaire and semi-structured interview method. Findings revealed that the compliance level was at a moderate level and that the companies were following the regulatory provisions but the code was yet to be widely accepted by the companies.

Hamid, Aziz, Dora and Said (2012:95) examined corporate governance reporting and disclosure by the top 250 public listed companies in Malaysia. They employed corporate governance disclosure index, annual reports. Findings revealed that there is no specific pattern on corporate governance reporting among top 250 companies in Malaysia and the disclosure index. It was also revealed that there is a very weak inverse relationship between the governance score and firm performance.

Adekunle and Asaolu (2013:157) examined financial reporting practices among banks in Nigeria. The study employed secondary data retrieved from annual report of 13 out of the 21 banks quoted on the Nigeria stock exchange between 2005 and 2009 and those data collected were regressed using Ordinary least square technique. The results indicated a 90% high level of compliance with the mandatory disclosure of composite disclosure index (CDI). Also the regression result showed that disclosure has a positive and significant influence on bank stability. Amori and Oyeleye (2017:280) examined the level of corporate governance compliance of firms in Nigeria and organizational performance. Primary data were gathered by administering 40 questionnaires to managers in Cadbury Nigeria PLC. Data gathered were analyzed using multinomial linear regression model. The result revealed that corporate governance has enhanced timely disclosure of financial information to stakeholder and also improved performance of firms.

Balasubramanian, Black and Khanna (2008:1) provided an overview of Indian corporate governance practices based primarily on responses to a 2006 survey by employing cross sectional method. Findings revealed that compliance with legal norms high in most areas but not completely high. Generally, it appears appropriate for larger companies and corporate governance and firm performance revealed a positive relationship.

Tosuni (2013:1) investigated corporate governance practices and performance of financial institutions. Both secondary and survey method was employed. A cross sectional and dynamic panel model techniques was used which showed that there is a positive relationship between the measure of good corporate governance and the market capitalization of banks in the USA. Alalade, Onadeko and Okezie (2014:285) examined corporate governance practices and firms' financial performance in the selected manufacturing companies in Lagos state Nigeria. The study employed comparative analysis and retrieved panel data from the company's annual report covering 2003 to 2010. The chosen of these years was to test the compliance to 2003 code of best practices.

Descriptive statistics, panel ordinary least square method of analysis and E-views 7 statistical tool was employed. Findings revealed that the majority of the companies implemented the code while some did not. Further result showed a positive relationship between the ROE and legal compliance and weak relationship between ROE and board compliance occurred.

Abdul-qadir and Kwanbo (2012:27) studied the level of compliance of banks after a consolidation. Data was extracted from the bank's annual report and employed t-test and ANOVA to test for the three hypotheses formulated. Findings revealed that there was an impact of dispersed equity on the profitability of banks. However, a large board size relates to profitability but does not significantly impact on financial performance.

4.11 Findings and Result

The study found out that the main corporate governance code was formulated in Nigeria in the year 2003. That was after democratic government took over from the military government in 1999. The reason was to address the weakness in the business environment and was justified by the findings from the reports of APRM 2008 and World Bank 2011 and to strengthen Nigeria's corporate governance framework. This led to immergence of 2003 code of corporate governance called code of best practice. The question of to what extent has the listed companies complies with the code? The findings are based on the literatures that the studies have been reviewed. Compliance was generally weak. One of the reasons was that of multiplicity of the codes. Another is that those codes have conflicting laws, and this made compliance to be difficult for these listed firms to comply with. For instance, banks have their separate codes issued by CBN and BOFIA. Insurance companies have theirs that is being directed by NASCON and separate code for listed manufacturing companies. All these weaken 2003 code of corporate governance and made compliance very difficult especially when there is conflicting and confusing provisions from different codes. However, in the literature it was also found out that the level of compliance of financial services sector of the Nigeria listed firms are better and higher than all other sectors in the country due to restructuring through consolidation process. Majorly banks and other financial institution are more compliant to statutory and compulsory rules than the voluntary laws except for the area of conflicting issues either local code or IFRS (Adekunle and Asaolu, 2013:157; Tsegba, Senberfan and Tyokoso, 2017:85).

The advent of 2016 national code of corporate governance to harmonize the multiple codes and to correct the weakness of 2003 code of best practice rescued the situation to some extent. Although there was nothing much to substantiate the extent to which companies have complied to this code because the code is still new and it is still in the rescue process. However, this study can generally discover that there is a great improvement from 2003 best practice when compared with 2016 national code of corporate governance. Therefore, the national code needs more time to be able to measure its effectiveness and the improvement is has compared to 2003 code.

4.12 Conclusion

This chapter found out that compliance of listed firms in the Nigeria stock exchange with 2003 code of corporate governance is very weak especially in the non-financial sectors. The weakness was ascribed to multiplicity of codes and conflicting nature of different codes in addressing the same issue. However, the advent of 2016 national code of corporate governance is in the process of correcting the weakness of 2003 code which the study believe would bring an improvement into the level of compliance and disclosure of listed firms in Nigeria.

CHAPTER 5:METHODOLOGY

5.1 Introduction

This chapter presents the methodology employed in carrying out this study. It is divided into several sections: 5.1 introduces the chapter while 5.2 summarizes the method use to capture the data employed for the study. Sections 5.3 talks about the theoretical framework of this study, sections 5.4 discusses the transmission channel linking corporate governance to firm value and Accounting ratios to firm value. While sections 5.5 presents logically the model specifications to achieve the empirical objective1 and empirical objective 2, sections 5.6 explains various robustness test employed for the study, sections 5.7 explains briefly the trend analysis which is objective 3. While section 5.8 presents the source and measurement of data for each variable, section 5.9 introduces the target population, section 5.10 dealt with sampling frame, section 5.11 presents sampling method, section 5.12 talks about sampling method, section 5.13 presents reliability test section 5.14 statistical analysis, descriptive analysis and significance tests and 5.15 presents the estimation techniques used in evaluating the set models respectively.

5.2 Empirical study

This study adopted a quantitative method of research in achieving the stated objectives. The study depends primarily on Secondary source of data through the use of annual report and financial statements of each of the selected listed firms. Mathematical calculations were applied in the calculation of each of the accounting ratios variables as well as other variables used in this study and its effect was analyzed on the firm value of each of the selected listed firms on the list. Also, Corporate Governance variables identified from literature and disclosed in the financial statement was analyzed on the firm value of each of the selected firms. This is with the aim of examining the dynamic interaction among accounting ratio, corporate governance and firm value, hence, the study determined both the short run and long run effect of corporate governance and accounting ratio on the firm value of each of the selected firms. The study made use of estimation techniques such as Panel Data Regression Technique, Panel Vector Auto-Regressive Technique and robustness check were employed. The result were presented in tabular form as well as graphs.

5.3 Theoretical Framework

The study adopted a combination of theories following the work of (Abdullahi and Valentine, 2009:88). This is because one theory of corporate governance leads to another theory. An example of this is the agency theory that leads to agency cost theory. The authors stated that a of combination of various theories is effective in describing effective corporate governance rather than using a single theory. Therefore, this research study is a combination of agency theory which leads to agency cost between the shareholders and the managers, stakeholders' theory and stewardship theory. The three theories were used to capture corporate governance and firm value. Stakeholder theory according to Freeman (2000:1) states that corporate accountability should be incorporated to the wide range of stakeholders unlike agency theory that says that manager should be directly answerable to shareholders. Stewardship theory according to Donaldson and Davis (1997:20) states that managers and all other employees (stewards) should be trustworthy and give a true and fair account to the shareholder. It is believed that honesty, transparency and commitment of manager and all other employees determine the quality of report value of the firm and sustainability of the firm value. Signaling theory and agency cost theory are theories used to capture accounting ratios and firm value. Michael Spence (1973:355) invented signaling theory. The signal of accounting ratios actually directs all the stakeholders to take rightful decisions. Accounting ratios signal to the manager, shareholders and other stakeholders the performance of the management and how they can improve on it. It can be used to carry out SWOT analysis of the company and help to reveal the areas of strength, weakness, opportunities and threat of the organization. It is a tool that assesses the performance of the management. Legitimacy theory and litigation theory was used to address the theoretical objectives on level of compliance and disclosure of companies.

Agency cost theory is a link between corporate governance, accounting ratios and firm value. The higher the cost of capital the lower the net income and in the long run leads to negative effect on the value of the firm. It is believed that if agency cost is well managed in an efficient and effective way to eliminate unnecessary cost, firm value would be maximized and improved.

The concept of agency theory, stakeholders' theory, and stewardship theory, signaling theory, legitimacy theory and litigation cost theory combined together explain this work by describing the component of firm value.

Equation 5.1:

$FV = \bar{Y}\rho + \bar{R}$ …….5.1

Where FV = firm value. $\bar{Y}$= the net income that corporate governance can explain and share price P = share price and $\bar{R}$ = are the other remaining factors that corporate governance cannot explain

The equation 5.1 states that the actual value of a firm is dependent on the effectiveness of the management, that is, the action of managers and other board members, that can best explained, and the residual factors, that is, the remaining ones, that cannot be explained by the action of manager and can signal to the stakeholders through accounting ratios. It is believed and proven that the quality of corporate governance is a machine that engineers and determine the quality of accounting ratios that the firm would generate. Therefore, if a company continues to generate favourable net income yearly, share or stock price continues to improve. If a company continues to generate good net income yearly, value is said to have been created in the long run. Concepts like market capitalization, directors' remuneration, growth of the company, return on asset and board size, are the factors considered to measure corporate governance. For all these concepts to bring out good result firms must be prudent in their spending through their board of directors and their committees must be active and effective. The company's asset must also be standard in terms of capacity and asset age to achieve good results that can commensurate with good corporate governance which needs to be in place. This can lead to good accounting ratios and improved firm value. From the above explanation the new equation now becomes:

Equation 5.2:

FV = CG +AR…….5.2

Where FV = firm value, CG = corporate governance and AR = Accounting ratios

Note that accounting ratio is incorporated into this equation in other words, to provide a signal that measures how effective management is and to direct the management to make concise and meaningful decisions. If good corporate governance is in place, this will be evident in accounting ratios. Therefore, corporate governance is directly correlated with improved firm value and also directly correlated with accounting ratios. The equation can be interchanged to arrive at:

Equation 5.3:

GCG = ↑AR, ↑FV……5.3

GCG = good corporate governance, ↑AR = improves accounting ratios and ↑FV= improves and sustain firm value.

5.4 Transmission channel of corporate governance accounting ratios to firm value

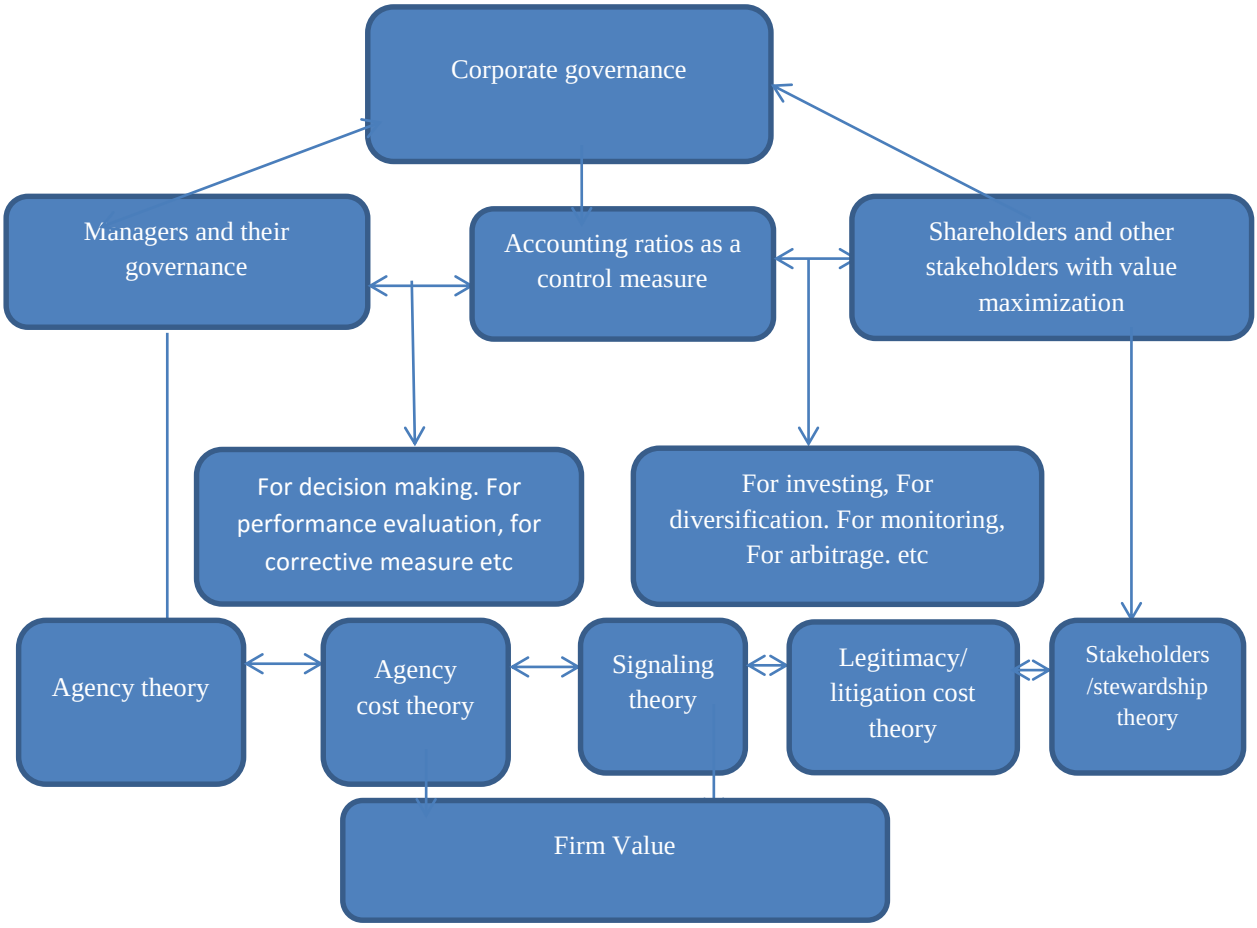


Figure 5.1: Transmission channel of corporate governance accounting ratios to firm value

Source: Own research, 2018

From the above flow, corporate governance can be transmitted to the firm value or performance through executive management control of the companies. This transmission channel between corporate governance and firm value can be explained by considering the Tobin's ''q'' method of firm valuation approach following the work of Brigham (1999:273) and Wahyudi and Prawesti

(2006:23). According to this approach, the value of the firm is equal to the market capitalization plus total debt plus total debt (TD) to total asset = $\frac{Share\ price\ x\ outstanding\ share\ capital+total\ debt}{Total\ asset}$

Bad governance by the board of directors affects corporate earnings and net income. There are so many reasons that can be attached to poor performance of managers few of them are: Asset age, outdated assets, lack of prudent spending, reckless spending, government policy, Location or business environment, lack of innovation, competitors, lack of expertise etc. On the other hand, all things being equal, good corporate governance also lead to higher firm performance. From the above flow chart it is evident that managers are the agents to the shareholders which allows them to have agency relationship. Agency theory is the best theory to describe this relationship and in the process it leads to agency cost. The higher the agency cost the lower the company's net income and vice versa. If there is no control measure over years, it affects company market capitalization and affect value of the company in the long run. A company is managed by the managers on behalf of shareholders. Between them there is accounting ratios which provide signal to both of them. Managers use accounting ratios to evaluate their performance and some other relevant decisions. Shareholders also use accounting ratios to monitor the activities of the managers, this helps them to take right decision relating to their portfolio and arbitrage process. Agency problem always occur between them due to their different objectives. Shareholders want return on their investment and take long term decisions. However, managers build an empire around themselves and they are concerned with short term decisions that can bring immediate profit because of uncertainty of the future (Flodberg and Nadjari, 2013:7). While managers are enjoying the company's private jet, private cars, company's house and other benefit, it affects owners negatively by decreasing profits. This is agency risk, where by shareholders' objective and that of manager can never align (Demsetz 1983:277). In a bid for a manager to satisfy shareholders, a comprehensive analysis of accounting ratios should also be disclosed and published alongside with the financial statement in the note to the account (Bello 2013:1). A good accounting ratio that can help to determine whether value has been created is either ROCE, or ROA, or RONA as discussed earlier in Chapter three of this study. Accounting ratios as the only way through which corporate governance effectiveness can be measured. Considering the above channel can be considered as a two edged sword where by it is a tool in the hand of company's manager that performs so many functions. Some of the functions are useful for decision making, forecasting, correction, guide against corporate failure, and for performance evaluation. Shareholders and other stakeholders on the other hand, use these ratios as

a signaling effect, whether value had been created and it is being sustained over years, whether their investment is secure or not and whether to invest more, diversify or divest (arbitrage). It has been proven that accounting ratios influence firm value Karaca and Savsar 2012:56). If comprehensive accounting ratios are published alongside with the annual report, it is assumed that it will reduce agency cost especially residual cost, monitoring cost and bounding cost which would alternatively increase firm value. Firm value can be increased either by decreasing the cost of capital or by increasing expected future cash flows. When there is a better alignment of management activities with shareholders' interest, it leads to higher free cash flows and to a better accounting ratio which eventually lead to higher firm value. Another way through which value of the firm can be measured is through business model which has also being discussed earlier in Chapter Three. Although it is difficult to measure 'good' corporate governance accounting ratio seems to be the only medium through which management efficiency could be measured in order to know whether good corporate governance is in place or not. The question is that does good corporate governance really exist or improve firm value? The answer is not far-fetched and can simply be illustrated by this diagram or flow chart below following the work of (Messbacher, 2004:1). Lower default risk → lower cost of debt → Lower WACC (cost of capital) → Prudent bounding cost → Prudent monitoring cost → Prudent other relevant cost → Lower residual cost → higher firm value. Alternatively, improved firm value can be achieved through judicious use of company's capitals and good governance to create and sustain value.

Other stakeholders like investors from the above flow chart can use accounting ratios to determine the best performing company to invest in using trend analysis system (Wahlen and Wieland, 2011:89). With the help of accounting ratios, external users that have no direct access to company's information use accounting ratios to take rightful decisions (Lev et'al, 2010:779). This is the reason why preparation of financial statement should be based on some level of assurance that financial reporting presents true and fair view of the company's economic activities; otherwise the results from accounting ratios would be a misleading one if stakeholders rely on it for certain decision making (Ingram and Albright 2007:1). Since it had been proven that accounting ratios provide simple, easy and quick means of detecting level of performance and financial health of companies, then the comprehensive publication of all accounting ratios should be done alongside with published financial statements. With this it would help company's management to be more

transparent, accountable and prudent in all their dealings. This will in turn reduce corporate failure rate and corporate scandals.

5.5 Model Specification

The study examined three company performance variables (corporate governance, accounting ratios and firm value) further proxy them with other variables. The variables are then incorporated into a model designed to represent how management performance leads to improved firm value. The test covers all sectors with the exception of financial services sector due to the peculiarity of their financial statement. The variables were incorporated into a linear model following the work of Kim and Lim (2010:288) with little modification.

Equation 5.4:

$$Y_{it} = \alpha_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} \ldots\ldots\ldots + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.4$$

Equation 5.5:

$$FV_{it} = \alpha_0 + \beta_1 CG_{it} + \beta_2 AR_{it} \ldots\ldots\ldots\ldots + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.5$$

Where Y_{it}/FV_{it} is the firm value which is represented by Tobin's q and α_0 is the intercept coefficient of the level of performance of the firm and β_1, $\beta 2$ are the parameter used in the model that represent the slope of each variable while X_1(CG) and X_2 (AR) are the explanatory variables used to proxy corporate governance and accounting ratios and ε_{it} is the error term. The 'it' in the model suggested that the work employed time series and cross sectional panel data for the study.

5.5.1 Model specification to determine the effect of corporate governance on firm value of selected listed firms in Nigeria.

This section presents the empirical model which expresses the linear relationship between corporate governance variables and firm value of the sampled companies. The proxy for firm value is Tobin's q and that of corporate governance are: company's growth, market capitalization, director's remuneration, return on asset, board size, which represent dependent variable and explanatory variable respectively. The model is hereby stated below following the work of Loncan and Caldeira (2013:51).

Equation 5.6:

$$Y_{it} = \alpha_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} \ldots\ldots\ldots + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.6$$

The model is further expressed and converted to the model below to incorporate the variables used for the purpose of this work.

Equation 5.7:

$Q_{it} = \alpha_{0it} + \beta_1 MCAP_{it} + \beta_2 GRT_{it} + \beta_3 BOS_{it} + \beta_4 ROA_{it} + \beta_5 DREM_{it} + \varepsilon_{it}$……5.7

Where Q_{it}/Y_{it} is the firm value which is represented by Tobin's q and α_0 is the intercept coefficient of the level of performance of the firm and $\beta_{1,}\beta_{2....}$ are the parameter used in the model that represent the slope of each variables while X_{it} , MCAP, GRT….are the explanatory variables used to proxy corporate governance and ε_{it} is the error term. The 'it' in the model suggested that the work employed time series and cross sectional panel data for the study.

5.5.2 Model specification to determine the effect of accounting ratio on firm value of selected listed firms in Nigeria.

This section also presents the empirical model expresses the linear relationship between accounting ratio variables and firm value of the listed companies in the sample. The dependent variable (firm value) is Tobin's q and that of accounting ratios variables are: return on asset (ROA), earning per share (EPS), current ratio (CR) Debt to equity ratio (DER) and Asset turnover (ASST). The linear model is stated below following the work of Karaca and Savsar (2012:58).

Equation 5.8:

$FV_{it} = \alpha_1 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it}$ …….....$\beta_n X_{nit} + \varepsilon_{it}$ …….5.8

Accounting ratios are further incorporated into model above to arrive at the model below:

Equation 5.9:

$Qit = \alpha_1 + \beta_1 ROA_{it} + \beta_2 EPS_{it}\ \beta_3 DER_{it} + \beta_4 CR_{it} + \beta_5 ASST_{it} + \varepsilon_{it}$……..……..5.9

Where FV/Q_{it} is the firm value (dependent variable) which is represented by Tobin's q and α_0 is the intercept coefficient of the level of performance of the firm and $\beta_{1,}\beta_{2....}$ are the parameter used in the model that represent the slope of each variables while $X_{1it,}$ X_{2it}, X_{3it},…..ROA_{it}, DER_{it}, EPS_{it},..…… are the explanatory variables used to proxy accounting ratios and ε_{it} is the error term. The 'it' in the model suggested that the work employed time series and cross sectional panel data for the study.

5.5.3 Model specification to determine the impact corporate governance and accounting ratio on firm value of selected listed firms in Nigeria.

This section presents the empirical model to achieve empirical objective one expresses in linear relationship among corporate governance variables, accounting ratio variables and firm value of the companies in the sample. The dependent variable (firm value) is Tobin's q, corporate governance variables are market capitalization (MCAP), growth (GRT), board size (BOS), director's remuneration (DREM), and accounting ratios variables are return on asset (ROA), earning per share (EPS), current ratio (CR),Asset turnover (ASST), Debt to equity ratio (DER). The linear model is stated below following the works of Li, Chen and French (2012: 471), Abdoli and Zadeh (2015:31), Karaca and Savsar (2012:58) with little modification. The number of variables of original equation were sixteen variables which has been compressed as shown below:

Equation 5.10:

$FV_{it} = \alpha_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} \ldots\ldots\ldots\ldots\beta_n X_{nit} + \varepsilon_{it}$ ……..……...….5.10

Equation 5.11:

$FV_{it} = \alpha_0 + \beta_1 CG_{it} + \beta_2 AR_{it}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots + \varepsilon_{it}$ ……5.11

The model is further converted to this long model below after incorporating corporate governance variables and accounting ratio variables. ROA is common to the two model equations because this study employed it to measure whether value created by the selected listed firms sustain value over the period under review.

Equation 5.12:

$Qit = \alpha_1 + \beta_1 MCAP_{it} + \beta_2 GRT_{it} + \beta_3 BOS_{it} + \beta_4 DREM_{it} + \beta_5 ROA_{it} + \beta_6 EPS_{it} + \beta_7 CR_{it} + \beta_8 DER_{it} \beta_9 ASST_{it} + \varepsilon_{it}$ …… 5.12

5.5.4 Model Specification to examine the dynamic interaction among corporate governance, accounting ratios and firm value of the firms listed in the Nigeria stock exchange.

This section presents the empirical model that expresses the linear relationship among the firm value proxy by the computed Tobin's q of the firms from different sectors at the stock exchange market in Nigeria, as well as corporate governance and accounting ratios represented by different control variables computed from the company's financial statements. The desire to model dynamic

interrelationship among the variables of the industrial sectors calls for the use of panel vector autoregressive (PVAR) since the research involves 10 industrial sectors. In doing this, the study constructed a PVAR model using each variable that made up the system model as endogenous following (Ahortor and Adenutsi, 2008:3278). This was used to study the dynamic interaction among the three variables for the Nigeria stock exchange. The method combined the traditional panel data analysis with the vector auto regressive model to capture the dynamic interaction of the variables that make up the system equation. Each of the variables is explained by its own lag and lags of the other variables such as the variables that are treated as being jointly determined. The technique test for short and long run dynamic interaction and relationship among variables existence of co-integration and the formation of tri-variate PVAR model allows of dynamic interaction of these three variables for the Nigeria stock exchange market. The panel combination model according to this study is as follows.

Equation 5.13:

$$FV_{it} = \alpha_0 + \alpha_1 \sum_{i=t}^{n} CGV_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \mu_{it} \quad \text{5.13}$$

Equation 5.14:

$$FV_{it} = \beta_0 + \beta_1 \sum_{i=t}^{n} ARV_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \quad \text{5.14}$$

Equation 5.15:

$$FV_{it} = \gamma_0 + \gamma_1 \sum_{i=t}^{n} CGV_{it} + \gamma_2 \sum_{i=t}^{n} ARV_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \quad \text{5.15}$$

Where FV_{it}= Firm value of ith firm at time t; CGV_{it}= Corporate Governance variables (Practices) of ith firm at time$t$; ARV_{it}= Accounting Ratios Variables of ith firm at time t.

X_{it}= the vector of control variables such as Asset turnover, company growth, ROA, Current ratio, Market capitalization, board size, director's remuneration, etc. The empirical models stated would be arranged in the sequential order in which the objectives of the study are stated. The simple linear empirical equation is stated below:

Equation 5.16:

$$FV_{it} = \alpha_0 + \delta_i CG_{it} \cdot AR_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \quad \text{5.16}$$

Where FV_{it} is firm value, $CG_{it} \cdot AR_{it}$ is the interactive term as a product of Corporate Governance (CG_{it}) and Accounting ratios (AR_{it}) and X_{it} will be the vector of control variables.

Equation 5.17:

$$FV_{it} = \alpha_0 + \beta_i CG_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.17$$

Where CG_{it} is corporate governance, FV_{it} is firm value, and X_{it} is the vector of control variables as above.

Equation 5.18:

$$CG_{it} = \alpha_0 + \gamma_i AR_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.18$$

Where CG_{it} is corporate governance, AR_{it} is accounting ratios and X_{it} is the vector of control variables as above.

Equation 5.19:

$$AR_{it} = \alpha_0 + \beta_i FV_{it} + \sum_{k}^{n} \theta_{ik} X_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.19$$

Where FV_{it} is firm value, AR_{it} is accounting ratios and X_{it} is the vector of control variables as above.

5.5.5 The Panel Unit Root Tests

It is suggested in the literature that panel unit root test have higher power than unit root tests based on individual time series. There are five types or methods of panel unit root test according to Levin, Lin and chu (2002:1), Breitung, (2000:161), Im, Pesaran and Shin (2003:53), Fisher-type test using ADF and PP tests by Maddala and Wu (1999:631) and choi (2001:249) and Hudri (2000:148). Theoretically, they are simply multiple-series unit root test that have been applied to panel data structures which can either be view as a group or as a pool. This estimation therefore involves testing unit root of the variables in order to confirm their stationarity state using the data generated for each variable and the model below:

Equation 5.20:

$y_{it} = \alpha + py_{it-1} + \mu_{it}$ 5.20

All the five types of panel unit root mentioned above were employed to check the stationary and non-stationary state of the variables. The decision was that the majority carry the vote otherwise first and second difference is conducted to determine whether null hypothesis or alternative hypothesis should be chosen. The Levin, Lin and Chu (2002:1) (LLC), Breitung and Hadri tests specification assumes a common unit root process. The first two tests employed a null hypothesis of a root while Hadri test used a null of no unit root. i.e. an ADF test which restricts parameters ρ_i in a way to keep them identical across cross-sectional individuals. The test mechanism requires strongly balanced data as they assumed the same value of error term for all panels and all the cross-sections. There is a common ρ for all cross section which assume individual unit root processes, i.e. individual ρ_i's for every cross-section that allows for heterogeneity of the parameters. This is often described as Heterogeneous Panel Unit Root Test. The heterogeneity gives room for choosing the lag length in ADF tests when in position of the uniform lag length is not appropriate. The heterogeneity also arises as a result of differences in country context as the test mechanism does not require balanced data for best result.

Equation (3.37) specifies the (LLC) common unit root process as follows:

Equation 5.21:

$\Delta y_{it} = \partial_i + \rho_i y_{it-1} + \sum_{j=1}^{p} \alpha_j \Delta y_{it-j} + \mu_{it}$ 5.21

Where *t=1…T* time periods and *i=1… N* members of the panel. Levin, Lin and Chu (2002) tests the null hypothesis of $\rho_i = \rho = 0$ for all *i*, against the alternative of $\rho_i = \rho_2 = \rho < 0$ for all i, with the test based on the statistics

Equation 5.22:

$t_\delta = \frac{\hat{\rho}}{se\,(\hat{\rho})}$ 5.22

The major issue with (LLC) is the restriction of ρ_i and it is kept identical across individual under both the null and alternative hypothesis. Im, Pesaran and Shin (1999:1) relax this "assumption of the identical first-order autoregressive coefficients of LLC test and allow ρ_i varying across

individuals under the alternative hypothesis". The IPS test the null hypothesis of ρ_i=0 for all *i*, as against the alternative of $\rho_i < 0$ for all *i*.

IPS test used mean- group approach such as average of the $t\rho_i$ statistics to perform the $\tilde{Z}$ statistics as given below:

Equation 5.23:

$$\tilde{Z} = \frac{\sqrt{N(\tilde{t} - E(\tilde{t})}}{\sqrt{Var(\tilde{t})}} \quad \text{.....5.23}$$

Where

Equation 5.24:

$$\tilde{t} = \left(\frac{1}{N}\right)\sum_{i=1}^{N} t_{\rho_i} \text{.....5.24}$$

"The term $E(\widetilde{t})$ and $Var(\tilde{t})$ are respectively, the mean and variance of each t_{ρ_i} statistic and $\tilde{Z}$ converges to a standard normal distribution. Based on Monte Carlo experiment results, IPS illustrate that their test has more favorable finite sample properties than LLC test".

If the variables are stationary at level, equation would be estimated based on that accordingly. If on the other hand, the IPS panel unit root test suggests non-stationary of the series at their level and stationary at their first difference would be determined, this means the series follow I (1) process.

5.5.6 Fisher-ADF and Fisher-pp

Fisher's (1932) results provided an alternative approach to panel unit root tests. This was initially proposed by Maddala, Wu and Choi.

5.5.7 Panel Co-Integration Tests

The next step is testing for existence of Co-integration of the variables using panel co-integration test technique. It is assumed that the issue of heterogeneity may arise since the study is looking at 10 heterogeneous industrial sectors as a result of their performance level and other characteristics of the Nigeria stock exchange market. The research work employed Pedroni (1999:653, 2004:597) panel co-integration test in order to allow for as much as heterogeneity as possible among individual members of the panel. Pedroni (1999:653; 2004:597) examined "the properties of

residual-based tests for the null of no co-integration in dynamic panels where both the short-run dynamics and the long-run slope coefficients were permitted to vary across individual members in the panel model". In his test, he considered both pooled within dimension and group mean between dimension tests. Pedroni (1999:653) considers the following times series panel regression

Equation 5.25:

$$y_{it} = \alpha_{it} + \delta_{it}t + X_{it}\beta_{it} + \varepsilon_{it} \quad \text{.....5.25}$$

Where y_{it} and X_{it} are the observable variables with dimension of (N*T) X_1 and (N*T) X_n, respectively. $t = 1, \dots, T \; and \; i = 1, \dots \dots, N.$ T Represent the number of observations over time; N represent the number of cross-sectional units in the panel. α_iIs the member specific intercepted or fixed effects parameter which varies across individual cross-sectional units? The same is true of the slope coefficients and member specific time effects δ_{it}. Pedroni (1999:653; 2004:597and 2007:265) further developed ''asymptotic and finite-sample properties of testing statistics to examine the null hypothesis of non-co-integration in a panel''.

Panel v-statistic:

Equation 5.26:

$$Z_v = \left(\sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{2}{}_{it-1}\right)^{-1} \quad \text{.....5.26}$$

$Panel$ ρ-statistics =

Equation 5.27:

$$Z_\rho = \left(\sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{2}{}_{it-1} \; \sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{2}{}_{it-1}\right)^{-1} \sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\left(\hat{\varepsilon}_{it-1}\Delta\hat{\varepsilon}_{it} - \hat{\lambda}_i\right) \text{.....5.27}$$

Panel PP-statistic:

Equation 5.28:

$$Z_t = \left(\hat{\sigma}^2 \sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{2}{}_{it-1} \sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{2}{}_{it-1}\right)^{-1/2} \sum_{i=1}^{N}\sum_{t=1}^{T} \hat{L}^{-2}{}_{11i}\left(\hat{\varepsilon}_{it-1}\Delta\hat{\varepsilon}_{it} - \hat{\lambda}_i\right) \text{.. 5.28}$$

Panel ADF

Equation 5.29:

$$Z^*_t = \left(\hat{s}^{*2}\sum_{i=1}^{N}\sum_{t=1}^{T}\hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{*2}{}_{it-1}\right)^{-1/2}\sum_{i=1}^{N}\sum_{t=1}^{T}\hat{L}^{-2}{}_{11i}\hat{\varepsilon}^{*}{}_{it-1}\Delta\hat{\varepsilon}^{*}{}_{it} \quad \text{..... 5.29}$$

The first statistics pool together "the autoregressive coefficients across different members for the unit root tests on the estimated residuals while the second test were between dimension approach". It is the pooling of residuals between dimensions of the panel and allows for a heterogeneous autocorrelation parameter across members. This makes use of three statistics. These are: group panel ρ-statistic, group panel PP-statistic and group panel ADF-statistic.

Group ρ-statistic:

Equation 5.30:

$$\tilde{Z}_\rho = \sum_{i=1}^{N}\left(\sum_{t=1}^{T}\hat{\varepsilon}_{it-1}^{2}\right)^{-1}\sum_{i=1}^{T}\left(\hat{\varepsilon}_{it-1}\Delta\hat{\varepsilon}_{it} - \hat{\lambda}_i\right) \text{ ……...……5.30}$$

Group PP-statistic:

Equation 5.31:

$$\tilde{Z}_t = \sum_{i=1}^{N}\left(\hat{\sigma}^2\sum_{t=1}^{T}\hat{\varepsilon}_{it-1}^{2}\right)^{-1/2}\sum_{t=1}^{T}\left(\hat{\varepsilon}_{it-1}\Delta\hat{\varepsilon}_{it} - \hat{\lambda}_i\right) \text{ .....…..5.31}$$

Group ADF statistic:

Equation 5.32:

$$\tilde{Z}_t^* = \sum_{i=1}^{N}\left(\sum_{t=1}^{T}\hat{s}_i^{*2}\hat{\varepsilon}_{it-1}^{*2}\right)^{-1/2}\sum_{t=1}^{T}\left(\hat{\varepsilon}_{it-1}^{*}\Delta\hat{\varepsilon}_{it}^{*}\right) \text{ …….'…….5.32}$$

From the equation in 5.29, each statistical notation are expressed as: $\hat{\varepsilon}_{it}$ "Is the estimated residual from equation" and $\hat{L}^2{}_{11i}$ is "the estimated covariance matrix" for $\Delta\hat{\varepsilon}_{it}$. Similarly, $\hat{\sigma}^2$ and $\hat{s}_i^2$ $\left(\widehat{s}_i^{*2}\right)$ are expressed in "long run and contemporaneous variances for individual respectively" i. "The other terms are properly defined in Pedroni (1999:653) with the appropriate lag length determined by the Newey-West method". Pedroni (1999:653) refers to the" first four of the seven statistics as panel co-integration statistics and the last three as group mean panel Co-integration statistics". In the presence of a co-integrating relation, the residuals are expected to be stationary. "These tests reject the null of no Co-integration when they have large negative values except for

panel-v test which reject the null of co-integration when it has a large positive value". The critical values were also tabulated by Pedroni (1999:653).

5.6 Robustness Test

In order to build up a reliable model that can provide reliable and non-spurious results some robustness tests were conducted to validate the result from equations 5.5 to 5.12 above. This test is imperative to any type of financial model especially panel data because it add credibility to models by testing the model across a wide set of possibilities. Since it was stated that various other factors affect the companies outside corporate governance, therefore various validity test is necessitated to be carried out to validate our equation. The equation is restated for the purpose of understanding.

Equation 5.33:

$FV_{it} = \alpha_0 + \beta_1 CG_{it} + \beta_2 AR_{it} \ldots\ldots.... + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.33$

5.6.1 Hausman Test

In any panel data model analysis, it is required to choose appropriate specification between fixed and random effect. Hausman test helps to determine the best model between fixed and random that best explain the model being studied. The relationship between independent and dependent variables of each industry sectors in the panel is assumed to possess individual characteristics which may influence the panel predictors or outcome of the variables analyses. Therefore, there is a need to control these individual characteristics which may impact or could be biased to the independent or dependent variables. The test states that "as the time invariant characteristics that are unique to the individual and should not be correlated with other individual characteristics". The fixed effect model assumes that error terms (ε_{it}) are fixed time invariant parameters, and the predictors are independent of the error term (ε_{it}) for all industry sectors at all times. That is, the model specification acknowledges cross section heterogeneity and assumes a different intercept for each industry sectors included in the sample which helps to reduce statistical endogenity in the analysis. The fixed effects remove the effect of time invariant characteristics in order to assess the net effect of the independent on dependent variables.

The random effects on the other hand show models which assume that the entity's error term is not correlated with the predictors and this allows for time-invariant variables to play a role as

explanatory variables. If there are reasons to believe that some omitted variables are constant over time but vary between cases, and others are fixed between cases but vary over time, then one includes both types by using random effects.

5.6.2 Test for cross-sectional dependence

Cross-sectional dependence describes serial correlation of panel data involving the interaction between cross-sectional data units of say firms/industry and countries in a region. This stems from the behavioral interaction between these economic agents due to social norms, psychological behavioral patterns, imitation among firms and similar policy implementation among the same industries. It can also arise as a result of spatial or spillover effects due to omitted common effects, unobservable common factors or as a result of interactions within socioeconomic networks and other behavior that cannot be quantitatively measured which makes them enter panel regressions as unobserved common factors. A growing body of literature on panel data analysis has shown that panel data models exhibit substantial cross sectional dependence in the error terms. This arises from the presence of common shocks and unobserved components that ultimately become part of the error term (Pesaran, 2007:265; Anselin, 2001:1; and Baltagi, 2005:1).

In most panel data analysis, data observations are usually assumed to be independent across individual components. On the contrary, many literatures on panel data analysis have shown panel unit root and co-integration tests based on cross-sectional independence assumption to be generally inadequate and tend to result in significant size distortions with the presence of cross-sectional dependence (Chang, 2002:223; Bai and Ng, 2004: 191, 2010:89; Bai and Kao, 2006:1; and Pesaran, 2007: 265). Also, the conventional panel estimators such as fixed or random effects is said to result in misleading inference and even become inconsistent estimators, depending on the extent of cross-sectional dependence and on whether the source generating the cross-sectional dependence such as an unobserved common stock is correlated with regressors (Andrews, 2005:15551; Phillips and Sul, 2007: 217; Sarafidis and Robertson, 2009: 149).

If individual observations are cross-sectional dependent, parametric or non-parametric estimators based on cross-sectional independence assumption becomes inconsistent and any statistical inference based on the estimators becomes generally misleading. These suggest that accounting for the effect of cross section dependence is crucial in panel data model analysis.

5.6.3 Different Test of Cross Section Dependence

Consider the standard panel data model in where

Equation 5.34:

$y_{it} = \alpha_i + \beta' x_{it} + \mu_{it}$ 5.34

Where i= 1……N, t = 1…….T, x_{it} is a Kx1 vector of regressors, β is a Kx1 vector of parameters to be estimated and α_i represent time-invariant individual nuisance parameters. Under the null hypothesis μ_{it} is assumed to be independent and identically distributed (i.i.d.) over time-periods and across cross-sectional units. Under the alternative, μ_{it} may be correlated across cross-sections but the assumption of no serial-correlation remains.

Then, the hypothesis of interest is

Equation 5.35:

$H_0: \rho_{ij} = \rho_{ji} = cor(\mu_{it}; \mu_{jt}) = 0 \; for \; i \neq j;$.....5.35

Vs

Equation 5.36:

$H_1: \rho_{ij} = \rho_{ji} \neq 0 \; for \; some \; i \neq j;$.....5.36

Where ρ_{ij} is the product-moment correlation coefficient of the disturbances and is given by

Equation 5.37:

$$\rho_{ij} = \rho_{ji} = \frac{\sum_{t=1}^{T} \mu_{it}\rho_{jt}}{(\sum_{t=1}^{T} \mu_{it}^2)^{\frac{1}{2}}(\sum_{t=1}^{T} \mu_{it}^2)^{\frac{1}{2}}} \quad \text{.....5.37}$$

Note that the number of possible pairings ($\mu_{it}; \mu_{jt}$) rises with N. Breusch-Pagan (1980) proposed a Lagrange Multiplier (LM) test statistic for testing the null of zero cross equation error correlations. This is the most well-known cross section dependence diagnostic test. Breusch and Pagan in a seemingly unrelated regression estimation (SURE) context with relative small N and large T show that, under null hypothesis in Equation (3.10). The Breush and Pagan (1980:239) LM tests can be applied to test for the cross-sectional dependence in heterogeneous panels. In this case it is given by;

Equation 5.38:

$LM_{BP} = \sum_{i=1}^{N-1} \sum_{j=i+1}^{N} T_{ij} \hat{\rho}_{ij}^2 \rightarrow x^2 \frac{N(N-1)}{2}$.....5.38

Where $\hat{\rho}_{ij}$ are sample estimate of the pair-wise correlation of the residuals. Specifically, $\hat{\rho}_{ij}$ are

the correlation coefficients obtained from the residuals of the model as described above. This is asymptotically distributed under the null as a x^2 with N(N-1)/2 degree of freedom is obtained for fixed N when $T_{ij\to\infty}$ for all (ij) and follows from a normality assumption on the errors.

However, this Breusch-Pagan LM tests statistics is not applicable when N$ij \to \infty$. That is, the test is likely to exhibit substantial size distortions in cases where Nis large and T is finite, a situation that is commonly encountered in empirical applications, primarily due to the fact that the LM statistic is not correctly centered for finite T and the bias is likely to get worse with large N. In this case, Pesaran (2004:300) proposes a scaled version of the LM_{BP} test given by;

Equation 5.39:

$$LM_s = \sqrt{\frac{1}{N(N-1)}}\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\left(T_{ij}\hat{\rho}_{ij}^2 - 1\right) \to N(0,1) \quad \text{.....5.39}$$

By this, Pesaran (2004:297) shows that CD_{LM} is asymptotically distributed as N(0,1), under the null hypothesis, with T$\to \infty$ first, and then N$\to \infty$. However, Pesaran notes one shortcoming of the scaled LM which is that $\left(T_{ij}\hat{\rho}_{ij}^2 - 1\right)$ is not centered at zero for finite T_{ij}, so that the statistic is likely to exhibit size distortions for small T_{ij}, and that the distortion will worsen for larger N. Therefore, the standard normal may be a bad approximation of the null distribution of CD_{LM} statistic in finite samples and using the critical values of standard normal may lead to big size distortion. Pesaran (2004:600) address the size distortion of LM and LM_s, by proposing an alternative statistic based on the average of the pairwise correlation coefficients $\hat{\rho}_{ij}$ as given by:

Equation 5.40:

$$CD_p = \sqrt{\frac{2}{N(N-1)}}\sum_{i=1}^{N-1}\sum_{j=i+1}^{N} T_{ij}\hat{\rho}_{ij} \to N(0,1) \quad \text{.....5.40}$$

This is asymptotically standard normal for $T_{ij} \to \infty$ and N$\to \infty$ in any order. Also, Pesaran points out that for a wide array of panel data models, the mean of CD is exactly equal to zero for all $T_{ij} >$ k+1 and all N, so that the CD test is likely to have good properties for both N and T_{ij} small, and Pesaran provides Monte Carlo evidence to support this claim. Furthermore, Baltagi, Feng and Kao (2012: 25) offer a simple asymptotic bias correction for the scaled LM test statistic as given by:

Equation 5.41:

$$LM_{BC} = \sqrt{\frac{1}{N(N-1)}}\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\left(T_{ij}\hat{\rho}_{ij}^2 - 1\right) - \frac{N}{2(T-1)} \to N(0,1) \quad \text{.....5.41}$$

For a fixed effects homogeneous panel data model with$T_{ij} \to \infty$, N$\to \infty$ and N/$T_{ij} \to \infty$ $c_{ij}, \in (0, \infty)$, Baltagi, et al. show that the scaled LM has an asymptotic bias term of N/ (2(T-1) resulting from the incidental parameters problem since, for smallT_{ij}, the within residuals are estimated imprecisely.

5.6.4 Sensitivity analysis

Sensitivity analysis was also conducted to determine the individual effect of each of the sectors at the Nigeria stock exchange market in respect of changes in corporate governance variables and accounting ratio variables as identified in the study. We achieved this by regressing corporate governance variables and accounting ratio variables on performance of each sectors through the use of ordinary least square technique and system-Generalized Moment Method (GMM). This adds credibility to any part of the financial model by testing the model across a wide range of possibilities. The analyst would to be flexible with the boundaries within which to test the sensitivity of dependent variables to the independent variables.

5.6.4.1 **Agricultural sector**

Here the model employed to capture the sensitivity of the Agricultural sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.42:

$$AS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ + \varepsilon i \ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.42$$

Where AS is the firm value at the time t for the agricultural sector proxy by the Tobin's q. CGV_{it} represents corporate governance variables practices of ith firm at time t while ARV_{it} is accounting ratio variables of ith firm at time t. X_{it} is the vector of control variable.

5.6.4.2 **Conglomerate sector**

Here the model employed to capture the sensitivity of the Conglomerate sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.43:

$$CS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ + \varepsilon it\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.43$$

Where CS is the firm value or firm performance at the time t for the agricultural sector proxy by the Tobin's q. CGV_{it} represents corporate governance variables practices of ith firm at time t while ARV_{it} is accounting ratio variables of ith firm at time t. X_{it} is the vector of control variable.

5.4.4c Information and Communication Technology sector

Here the model employed to capture the sensitivity of the Information and Communication Technology sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.44:

$$ICTS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots 5.44$$

Where ICTS is the firm value or firm performance at the time t for the ICT sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable. **5.4.4d Healthcare sector**

Here the model employed to capture the sensitivity of the healthcare sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.45:

$$HS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots 5.45$$

Where HS is the firm value or firm performance at the time t for the healthcare sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.4.4e Services sector

Here the model employed to capture the sensitivity of the services sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.46:

$$SS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots 5.46$$

Where SS is the firm value or firm performance at the time t for the service sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.4.4 Natural resources sector

Here the model employed to capture the sensitivity of the natural resources sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.47:

$$NRS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots 5.47$$

Where NRS is the firm value or firm performance at the time t for the natural resources sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.6.4.3 **Consumer goods sector**

Here the model employed to capture the sensitivity of the consumer goods sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.48:

$$CGS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.48$$

Where CGS is the firm value or firm performance at the time t for the consumer goods sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.6.4.4 **Oil and Gas sector**

Here the model employed to capture the sensitivity of the oil and gas sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.49:

$$OGS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.49$$

Where OGS is the firm value or firm performance at the time t for the oil and gas sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.6.4.5 **Industrial goods sector**

Here the model employed to capture the sensitivity of the oil and gas sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.50:

$$IGS = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ldots 5.50$$

Where IGS is the firm value or firm performance at the time t for the industrial goods sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.6.4.6 **Construction/real estate sector**

Here the model employed to capture the sensitivity of the construction and real estate sector to changes in corporate governance and accounting ratios is shown below:

Equation 5.51:

$$CRES = \propto\circ + \beta 1 \sum_{k=0}^{n} CGV\ it\ + \beta 2 \sum_{k=0}^{n} ARVit\ + \sum_{k=0}^{n} \theta it\ Xit\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots 5.51$$

Where CRES is the firm value or firm performance at the time t for the construction and real estate sector proxy by the Tobin's q. CGVit represents corporate governance variables practices of ith firm at time t while ARVit is accounting ratio variables of ith firm at time t. Xit is the vector of control variable.

5.7 Trend Analysis

Here the study examined the trend of the sampled firms for the past ten years. The findings were then used to generalize the performance of the sector as a whole. The result of the analysis from Graphs and charts were used to arrive at the inference for both the firms under review and for the sectors as a whole.

5.8 Sources of data, measurement of variables and Data Collection Method

This study used secondary data to measure corporate governance variables, accounting ratios and firm value. The information was collected from annual reports and Nigeria's stock exchange market websites. For the purpose of this study, data were collected from 2008 to 2017. This period was chosen to test the relationship between corporate governance, accounting ratios and firm value because it reflects the period when the country experienced market shock due to the effect of world economic meltdown shortly after Enron case in 2002, and it was the era when Nigeria capital market crashed coupled with the recession experienced recently. It was also the era when corporate governance practices of firms were sectionalized and thus firms struggled to apply the rules of corporate governance in 2003. Thereafter, the sectionalized codes had been merged as national code in 2016. Lastly it was an era when the capital market is picking up from the shock. Data collected were calculated in form of ratios, or fraction or percentages and thereafter measured in monetary value. The following steps were applied in data collection. The study selected financial reports based on convenience method of sampling. The study made use of the annual report of listed firms at the Nigeria Stock Exchange from 2008 to 2017. The study then made use of all the

information in the financial statements to compute all the data (ratios and other data) needed for this work. The missing data and just concluded year 2017 were retrieved online and others were gotten through hard copy from their individual head offices in Lagos and Abuja Nigeria. In this study, major variables under corporate governance, accounting ratios and firm value were computed, processed and measured from the financial statement using their various formulas before it became useable data.

5.9 Target Population

Fox, Hunn and Mathers (2007:18) highlights the target population as a number of individuals about which a researcher is interested in describing or making a statistical inference. A population is a group of elements or causes, whether individuals, objects or events, that conform to specific criteria and to which we intend to generalize the results of the research (Mugenda, 2003:83). The target population for this study is 170 financial and non-financial listed firms who have their up to date financial statements for ten years (2008-2017), convenience sampled from each of the industrial sectors as listed on the Nigeria Stock Exchange Fact book. These170 firms are grouped into 11 sectors. This study willingly excludes financial services sector due to peculiarity of the financial statement of this sector. This simply means that this work only covers 10 sectors.

5.10 Sampling Frame

The sampling frame for this study consists of only all the listed firms on the Nigeria Stock Exchange Market who has their financial statement published as at 31st December 2017 with the exception of financial services sector. Therefore 170 listed firms constitute the sampling frame for this study as identified by the Nigerian Stock Exchange Fact Book.

5.11 Sampling Method

Convenience and purposeful sampling is a non-probability sampling technique where the firms selected are only those deemed to have the required information. In this study firms with ten years up to date financial statement at the Nigeria Stock Exchange Fact Sheet were being selected for this purpose. The justification for selecting this period was that, it reflects the corporate governance practices of firms after these listed companies in the NSE were obliged to apply the rules of corporate governance in 2003 in Nigeria. Also, there were anxieties as to whether companies actually comply with the code. Together with this, it was the period when economy

ic meltdown was believed to have been over in the world market shortly after the major scandal in USA in 2002. Just after that scandal of oceanic bank and intercontinental bank occurred in 2008, 2009 and stock value of listed firms on the Nigeria stock market crashed with reputable companies with high performing stock value drastically dropping.

5.12 Sample size

The sample size for the study was at a 95% confidence interval, which predicted the firm within the plus or minus 2.5% to be 48. This is justified from preliminary investigations, which revealed that only 48 firms have their up-to-date annual financial accounts for 10 years (2008-2017) published in the Nigerian Stock Exchange Fact Sheet. However, only 30 out of 48 firms were classified under 10 industrial sectors, while other firms fall under the financial sector and are outside the scope of this study. Hence, this study covers 30 firms which represent all the 10 sectors.

5.13 Reliability Analysis

Reliability tests were carried out on both corporate governance variables, accounting ratio variables retrieved from the financial statement. A ‘‘Reliability test’’ is defined according to the oxford dictionary as ‘‘the overall consistency of a measure’’. A measure is said to have a high reliability if it produces similar results under consistent conditions. A reliability test is necessary but is not sufficient on its own but it used together with a validity test. A Validity test is used to measure the accuracy of the study or measurement. Therefore, various tests were conducted in the study to improve the quality and reliability of the data use, such as unit root test and other robustness check.

5.14 Statistical Analysis

The computed and captured data were analyzed using a Statistical Package, E-views 9.0. The statistical method was used on the empirical data sets. It indicated the different steps such as the Selection of financial reports, Identification of statements of financial position, income statements and cashflow statements, computation of ratios, ratio analysis, mathematical calculations, mathematical modeling, statistical analyses of firms and a comparison of the selected firms.

5.14.1 Descriptive Analysis

Central tendency and variability measures were used to describe the values in distributions. In this case: frequencies, percent, mean, and standard deviation etc measures were applied.

5.14.2 Significance Tests

Inferential statistics were used to test the null hypothesis and the level of significance was at 1%. Panel Regression analysis was the main inferential statistics techniques employed in the study to test the hypotheses. Also, sensitivity analysis using pooled OLS regression with robust standard error was carried out to check sensitivity. Scrutiny of the assumptions of panel (pooled) regressions like fixed and random effect, cross sectional dependence test and normality was performed and appropriate measures undertaken if any of the assumptions was violated. The Panel (Pooled) regression analysis was used to model the relationship between Corporate Governance variables identified from the literature and firm value. Also, the relationship between accounting ratios variables identified in the literature which has been calculated mathematically and firm value was also modeled. This was appropriate in the study because the study made use of firm value as the dependent variable.

5.15 Estimation Techniques

This explains the techniques employed in the achievement of the stated objectives of the study. The study made use of both the descriptive and inferential methods. The objective that was achieved in this study is divided into theoretical and empirical. The overall objective which was to develop a model that indicate the effect of corporate governance initiatives on accounting ratios and company value was carried out by representing a good corporate governance with a functional model. This was carried out by using corporate governance code to link external governance and internal governance together and indicates and incorporates accounting ratios as a signal that guide the performance of manager's operations. These variables together enhance company's value in the long run. The first theoretical objective which was to appraise the extent to which firms complied with the governance code as amended in 2016 and also the linkage between voluntary compliance with the NCGC using a broad composite corporate governance index. These two objectives were achieved through thorough review of related literatures. The first empirical objective which studies the impact of corporate governance, accounting ratios on the firm value of

the selected firms in Nigeria was carried out using pooled ordinary least square multiple regression, GMM and descriptive statistics. The effects of the variables (corporate governance and accounting ratios) were analyzed and interpreted separately before they were considered together.

Fixed or random was determined by conducting Hausman test. Baltagi, 2005:1 stated that "panel data is the combination of cross-sectional and time-series data and it is known that cross-sectional data suffer from heteroscedasticity while time-series data is faced with the problem of autocorrelation". This study therefore tests for autocorrelation and heteroscedasticity given the fact that in statistical terms, the analysis should include a test to estimate the unobserved heterogeneity as a parameter of the model (Fixed effects) or as an outcome of a random variable (Random effects). Robustness test was introduced to validate the achievement of objective two.

The second empirical objective which also examined the dynamic interaction among corporate governance, accounting ratios and firm value of the selected firms at the Nigeria stock exchange market was captured stating a model. This was estimated using the panel data regression technique. Panel data is the pooling of observations on a cross sectional such an industry, or firms over several time periods (Baltagi, 2005:1). The estimation was carried out following the process from Panel unit root, Panel co-integration, Panel Vector Error Correction Mechanism, Impulse Response Function, Variance Decomposition and the lag order was determined using Akaike Schwarz and Hannan- Quinin information criteria, and the lag order was implemented in the model.

CHAPTER 6:DATA ANALYSIS AND INTERPRETATION

6.1 Introduction

This chapter focuses on data analysis and interpretation, it addressed the objectives one after the other starting from descriptive analysis to last objective which is the dynamic interaction of the variables. For better understanding objective one was split into two parts. The study first looked at the impact of corporate governance on firm value and the impact of accounting ratios on firm value before they are later combined as the impact of corporate governance, and accounting ratios on firm value of listed companies on the Nigeria stock exchange.

6.2 Objective 1a: Effect of corporate governance on Firm Values in the Nigerian Listed Firms

Here, the study also begins with the analysis of the properties of the data by obtaining the descriptive statistics of all the variables used in the study. In order to examine the impact of corporate governance on firm values in the Nigerian listed firms, the achievement of this objective begins with the analysis of the properties of the data. This is done by obtaining the descriptive statistics of all the variables used in the study. The descriptive statistics provides information about the measures of central tendencies such as mean, median and the minimum and maximum values. The mean value measures the average value of all the variables used while the median measures the middle value. In addition, the descriptive statistics also provides information about the measures of dispersion such as standard deviations, skewness, kurtosis, and Jarque-Bera and the probability of Jarque-Bera. Standard deviation explains the deviation of the value of each of the variables from the mean. While skewness measures the shape of the distribution, kurtosis measures the tallness of the distribution. Jaque-Bera and its probability are used to confirm the validity or otherwise of the normal distribution.

It also examined the general characteristics of the data over the period under study in relation to the variables identified. This allowed us to see if there are violations of statistical assumptions on the data set before inferences can be drawn from them. Tables 6.1 below showed the numerical descriptive statistics and the distribution measured by skewness which is the deviation of the distribution from symmetry. The measures of central tendency were the mean and median. These provide an estimate of the central of the distribution, while the measures of variability are the

standard deviation measure from the mean while the sum of squared deviations indicate the spread of the data set employed in the study. Results showed that the mean and median values of all the variables are within their minimum and maximum values. This implies the entire group of variables displayed a high level of consistency within the study period. In addition, the Standard deviation showed measurement of dispersion around the mean series. It is often interpreted in relative terms by comparing the deviation of two different distributions. The distribution with smaller standard deviation is said to exhibits less dispersion while a larger standard deviation shows higher dispersion. Looking at table 6.1, the effect of firm value on the corporate governance variables which are board-size, market capitalization, director's remuneration, growth and ROA are 1.64, 7.84, 0.87, 1.05, 8.05 and 8.92 respectively exhibits a less dispersed series. By comparing the value of standard deviation of all the variables with their respective mean values, it can be deduced that Tobin-q, growth and ROA are stable over the study period as their standard deviation values (1.63, 8.05 and 8.91) are higher than their mean values (1.15, 0.83 and 5.86) respectively.

Another important feature of the data is kurtosis that measures the tallness of the shape of the distribution. Based on the descriptive result, Tobin's q and growth are leptokurtic, that is, they have extremely high height. ROA, director's remuneration and board size are platokurtic, while the shape of market capitalization variables is mesokurtic, that is, flat-top. The row under kurtosis, in the table 6.1, measures the flatness and tallness of the distribution of the series. A normal distribution has a kurtosis value of greater than or equals to 3 (leptokurtic) while platykurtic distributions are characterized with kurtosis value less than 3. From the table, firm value board and growth showed peak (leptokurtic) distribution relative to the normal with the value of 85.44 and 206.17 respectively, the effect of ROA, director's remuneration and board size are platykurtic while the effect of market capitalization to firm value showed a mesokurtic distribution of 2.37 which is less than 3.

The table numerically shows that on the average, the value of listed companies sampled at the stock exchange market was 1.16, board size was 16.05, market capitalization was 7.16, Director's remunerations was 4.5, growth was .83 while Return On Asset (ROA) within these periods 2008-2017 stood at 5.86. The maximum performance of the companies was recorded as 122.91% while the minimum was 0%. The maximum level of Tobin's q which represents firm value based on its measurement was 19.39% while the minimum was 0.05%. The maximum board size over the period was 35% as against the minimum of 7%. The maximum level of market capitalization was

9.12% against the minimum of 5.36%. The maximum director's remuneration was 6% against the minimum of 0%. The maximum growth of the firms was 122.91% against the minimum of -13%. The maximum ROA was 29% against the minimum of -43.20% Skewness which measures the asymmetry of distribution around its mean showed that the sampled companies were both negatively skewed and positively skewed. Firm value, board size, market capitalization, and growth are positively skewed with 8.32, 1.08, 0.10 and 13.79 respectively while directors' remuneration and ROA are negatively skewed with -3,20 and -0.74 respectively meaning that the value of the variables used have been fluctuating over the period under study. Finally, Jarque-bera results and its statistics showed that the null hypothesis of no normal distribution is rejected at 1%. The reason for this is attributed to heterogeneity nature of the panel data and the number of years the data cover which is less than 30. This implies the shape of all the variables is not normal as the values of the skewness of all variables are greater than one.

Table 6.1: ***Descriptive Statistics***

	TOBIN-Q	BOARD SIZES	MARKET CAPITALISATION	DIRECTOR's REMUNERATION	GROWTH	ROA
Mean	1.157192	16.05385	7.156824	4.501491	0.830846	5.860923
Median	0.850000	12.00000	7.256327	4.673261	0.185000	4.615000
Maximum	19.39000	35.00000	9.116708	6.003668	122.9100	29.00000
Minimum	0.050000	7.000000	5.360970	0.000000	-13.00000	-43.2000
Std. Dev.	1.636816	7.843854	0.872559	1.053174	8.054589	8.918547
Skewness	8.322590	1.076861	0.098944	-3.198661	13.78772	-0.73630
Kurtosis	85.44579	3.228229	2.369692	14.37426	206.1656	8.148940
Jarque-Bera	76639.01	50.81492	4.728186	1844.910	455397.0	310.7017
Probability	0.000000	0.000000	0.094035	0.000000	0.000000	0.000000
Sum	300.8700	4174.000	1860.774	1170.388	216.0200	1523.840
Sum Sq. Dev.	693.9045	15935.25	197.1922	287.2765	16802.99	20600.98
Observations	260	260	260	260	260	260

Source: Own research, 2019

6.2.1 Correlation Matrix

The next step is to examine the degree of association among the variables. This is because a high level of correlation between two independent variables will result to multi-collinearity. To examine

the possible degree of association among the variables, correlation matrix was obtained for both the dependent and independent variables. Table 6.2 below reports the sample correlation matrix of the variables employed in the study. The correlation table gives a preliminary idea of the direction of correlation between the selected variables. The results in table 6.2, shows that in terms of magnitude, the correlation coefficient is generally high, while some variables have positive correlation, others are negative. Results showed that there is no strong relationship among some variables as their correlation coefficients is less than 0.5 while there are strong relationship among growth and Tobin's q, growth and director's remuneration, where their coefficient is greater than 0.5. This implies the two variables must not be included in the same regression. The result is significant at 1%. Based on the direction of relationship among the variables, an inverse relationship exists between director's remuneration and board size, growth and board size, growth and market capitalization, ROA and growth. While the relationship between market capitalization and firm value, market capitalization and board size, ROA and market capitalization, ROA and growth are significant at 1%, ROA and firm value, ROA and board size, director's remuneration and market capitalization are significant at 5% all other variables have positive relationships. While some are significant, others are not. In general, the regression result may be free of multicollinearity as there is no strong relationship among some independent variables in the study except growth.

In general, from the table, all independent variables are positively correlated with the value of the firms sampled. This suggests that board size contributed 0.09, market capitalization 0.31, directors' remuneration 0.09, growth 0.00, and ROA 0.15. This also suggests that all the independent variables move in the same direction as the value of the firm moves. This result is quite consistent with apriori expectation that says that the way and manner in which companies are being managed and control is directly proportional to firm value (Rouf 2011:73; Darmadi 2011:1). It should be noted that when firm value increases it does not really signify growth of the firm in numerical manner but value is surely created. A real example is the analysis result from growth of 0.00%.

Table 6.2: Correlation Matrix

	TQ	BOARD	MKT	DIRECTOR	GROWTH	ROA
Tobin's q	1.000000					

BOARD	0.092088	1.000000				
	0.1386	-----				
MKT	0.305749	0.282841	1.000000			
	0.0000	0.0000	-----			
DIRECTOR	0.089384	-0.087429	0.139747	1.000000		
	0.1507	0.1598	0.0242	-----		
GROWTH	0.001649	-0.057873	-0.076894	0.016758	1.000000	
	0.9789	0.3527	0.2166	0.7880	-----	
ROA	0.153368	0.148768	0.375987	0.092246	-0.220197	1.000000
	0.0133	0.0164	0.0000	0.1380	0.0003	-----

Source: Own research, 2019

6.2.2 Panel Unit Root Test Result

An empirical analysis was carried out to check whether the variables under consideration are stationary. This was done in order to ensure that the variables used for the regressions are not subjected to spurious correlation by employing the use of Panel Unit Root Test. A unit root process is a highly persistent time series process where the current value comprises of the last period's value and a dependent disturbance. Panel unit root test examine the compliance or otherwise of the series in the panel data with the unit root process. Since each panel unit root technique has its limitation, it is better to adopt more than one panel unit root tests for a robust check before an appropriate decision is made. To this end, the Im, Pesaran and Shin (2003:53) (IPS) unit root test, Levin, Lin and Chu (2002:1) (LLS) as well as Fishers PP specification are used to test for the presence of unit root in the panel data. Since the characteristics of the 10 sectors involved in the

study are likely to be heterogeneous in nature, IPS test was preferred to LLC and FPP unit root test. However, either LLC or FPP unit root test results were used to confirm IPS test results but where IPS and LLS disagree; the rule is any two among the three methods must agree together. The individual Intercept was included in the test equation in all the mentioned unit root tests. The lag length for each variable was automatically selected by Schwartz Information Criterion (SIC) and Individual Intercept was included in test equation for all variables. Newey-West method was equally applied to choose the optimal lag length or bandwidth.

The three tests investigated the null hypothesis of all panels contain unit roots against different alternative hypotheses. For instance, the alternative hypotheses stated under LLC and W_{IPS} tests are "Panel is stationary" and "Some panels are stationary" respectively. However, LLC test assumes a common unit root process for the series in all cross- section, while W_{IPS} test assumes an individual unit root process. The three tests are generally based on autoregressive lag (1) process. The firm value, board size, market capitalization, directors' remunerations, growth and ROA were used for the test. The results of the test show that all the variables were stationary at first differences. The detail of the results is shown in table 6.2 below.

Table 6.3: Unit Root Test

	Im, Pesaran and Chin			Levin Lin Chu			Fisher PP		
Variables	Level	First Diff	Remarks	Level	First. Diff	Remarks	level	First diff	Remarks
Tobin q	-10.74*	-	I(0)	-94.75*	-	I(0)			
Board				-1.94**	-	I(0)	-1.55***	-	I(0)
Market	-1.03	-3.18*	I(1)	-6.16*	-	I(0)	-2.65*	-	I(0)
Director	-9.46*	-	I(0)	-46.00*	-	I(0)			
Growth	-16.30*	-	I(0)	-108.85*	-	I(0)			
ROA	-3.44*	-	I(0)	-27.52*	-	I(0)			

Note: *, ** & *** represent level of significance at 1%, 5% and 10% respectively.

Source: Own research, 2019

The Im-Pesaran-Shin (IPS) (2003:53) W-statistic results showed that the firm value, director's remuneration, growth and ROA contained unit roots at their levels except board size and market capitalization while the majority of their probabilities were less than 1%. This means that the variables are stationary at levels. This way, if a regression is carried out using the level of the variables, there will be an absence of spurious outcomes. This implies that the variables are

integrated of order one, they are I(0) processes. Based on the above findings, the precondition for the co-integration test by Pedroni (1999:653, 2004:597) was satisfied for the level or first difference of the logs of the variables.

6.2.3 Panel Co-Integration Test

After confirming the order of integration in the series, the next stage is to verify whether the variables are co-integrated. This is achieved by conducting Co-integration tests. This study therefore, considered one panel Co-integration tests which is Pedroni (1999:653). The author, Pedroni examined properties of residual- based tests for the null of no co-integration for dynamic panels in which both the short run dynamics and the long run slope coefficients are permitted to be heterogeneous across individual members of the panel. Pedroni also considers both pooled within dimension tests and group mean between dimension tests and to avoid autocorrelation in the model, the industrial sector stock market performance and other variables were estimated in different models. Individual intercept, intercept and trend and no intercept and trend (None) test were carried out on the variables as shown in table 6.2. The test result shows that all the Pedroni's statistics significantly reject the null hypothesis of no co-integration among the variables. This implies that there exist long-run relationship among the firm value which is the dependent variable and the board size, market capitalization, directors' remuneration, growth and ROA which are the explanatory variables.

Table 6.4: Panel Co-Integration Test

	Statistic	**Prob.**	**Statistic**	**Prob.**
Panel v-Statistic	-1.641936	0.9497	-1.712017	0.9566
Panel rho-Statistic	1.857831	0.9684	1.834931	0.9667
Panel PP-Statistic	1.045755	0.8522	0.492068	0.6887
Panel ADF-Statistic	1.074041	0.8586	0.919988	0.8212
Alternative hypothesis: individual AR coefficients. (between-dimension)				
	Statistic	**Prob.**		
Group rho-Statistic	2.592443	0.9952		
Group PP-Statistic	1.093068	0.8628		
Group ADF-Statistic	1.522714	0.9361		

Source: Own research, 2019

The last step in achieving this objective is to estimate equation 5.7 earlier stated in chapter five of this study. To achieve this, three methods of estimation namely: Pool OLS, fixed/random effect and system Generalized Method of Moment (system-GMM) were employed. The choice of either fixed or random effect is informed by Hausman test. After conducting the Hausman specification test, the result favor random effect over fixed effect method of estimation. The choice of pool OLS and random effect are for comparison. However, In order to correct for the likely issues of simultaneity, endogeneity and multi-collinearity that may arise due to the problem of bi-directional causality between the independent and the dependent variables and also the relationship between the independent variables and the error term, the system-GMM was also employed. Results of the three estimations are presented in table 6.5. From the table, five measures of corporate governance, namely: market capitalization, board size, director's remuneration, growth and ROA, together with Tobin's q as a measure of firm value and dependent variables were used. The Results showed that for the pool OLS, all variables have positive impacts on firm value. The implication is that if good corporate governance has to be in place, the quality and number of boards that govern the company is very important because of its positive impact on the organization as a whole. Well-governed firms by the company's boards of directors improve market capitalization, growth of the firm, and returns on assets. All variables from the table are statistically insignificant except market capitalization that is significant at 1% level of significance. The result of random effect is similar to that of pool OLS. The result of the two estimation techniques is the same. For the random effect, all variables have positive impacts on firm value and not statistically significant. The story is different for system-GMM results. All variables have positive relationship with firm value except market capitalization and they are statistically significant. According to the result, 1% increase in board size, director's remuneration, growth, and ROA increase value of the firm by 6.13%, 0.09%, 0.04% and 0.04% respectively. In general, considering all corporate governance variables used in this study, the study revealed that the variables have a positive and significant effect on firm value. This means that corporate governance enhance, impact and improve value of the firm as it was highlighted in the literature by Rouf (2011:73), Bhat, Chen, Jebran and Bhutto (2018:1196) revealed that market capitalization and ROA have a positive and significant association with firm value. The interpretation here is that market capitalization and ROA which are the variables that measured value of the firm contribute more impact to value of the firm as measured by Tobin's q. The result also supports

Tornyeva and Wereko (2012:95), and Hussein and Venkatram (2013: 358) that board size and firm value have positive and significant impact. The present result also confirmed the findings of Darmadi (2011:1) who revealed that good executive compensation and firm value are positively correlated. The result also confirms the result of Ebere, Ibamchuka and Ogbonna (2016:34) that found out that ROA and board size are positively and statistically significant.

In order to correct for the problem of endogeneity, simultaneity and multicollinearity, the lag of all the independent variables and the dependent variable were used as instruments both at level and at difference. For diagnostic test, j-statistic that measures the validity of instrument used is presented in the table. The result confirmed the validity of the instruments and the conditions for using the approach.

Table 6.5: Result of Pooled OLS, Random effect and System- GMM

Dependent Variable: Tobin-q

Variables	Pool OLS	Random Effect	GMM
Constant	-3.022 (0.00)*	-2.210 (0.06)***	
Tobin-q (-1)			0.457 (0.00)*
Board Sizes	0.002 (0.85)	0.004 (0.82)	6.129 (0.00)*
Market Capitalization	0.525 (0.00)*	0.436 (0.01)*	-1.231 (0.00)*
Director's Remuneration	0.071 (0.44)	0.020 (0.82)	0.088 (0.00)*
Growth	0.006 (0.57)	0.005 (0.67)	0.036 (0.03)**
ROA	0.009 (0.45)	0.012 (0.35)	0.036 (0.00)*
R^2	0.098	0.04	
Adj. R^2	0.080	0.02	
F-Statistic	5.54 (0.00)*	2.28 (0.04)**	
Hausman		6.19 (0.28)	
J-Statistic			20.37
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	260	260	208

Note: *, ** & *** represent level of significance at 1%, 5% and 10% respectively.

Source: Own research, 2019

6.2.4 Effect of corporate governance variables on firm value

This section determines the effects of board size, market capitalization, directors' remuneration, growth and ROA on the firm value of some selected firms in Nigeria. The study performed the pooled ordinary least square on the firm value of selected companies, board size, market capitalization, directors' remuneration, growth and return on asset (ROA).

The corporate governance variables in this study were based on the combinations of Agency Theory and Stakeholders' Theory which state that better corporate governance positively affects the performance of the firm and poor governance leads to low or poor performance of firms. Table 6.5 above presents the result from the pooled ordinary least square analysis which is used to determine the effect of corporate governance on firm value. The results of Pooled Least Square in Table 6.5 consist of the estimated model and the model was presented under the coefficient. The result was interesting with varying statistical significance levels for some of the coefficients while some of them were also statistically insignificant. The adjusted R-squared of 0.09 was obtained from the regression model. This suggests that all the explanatory variables (Board size, market cap., directors' rem, growth and ROA) account for 10% variations in the dependent variable (Tobin's q). The F-statistics which test for the overall significance of the model is relatively high and provides a good fit for the estimated model as its probability is significant at 1% in the model. The Durbin Watson (DW) statistics was generally high satisfactory indicating non-existence of autocorrelation problem in the model. The explanatory variables are therefore considered one after the other. The results of the pooled OLS showed that board size showed a positive relationship and insignificant effect on the firm value of the sampled firms. This is consistent with the result of Tornyeva and Wereko (2012:95); Hussein and Venkatram (2013: 358) and Wet and Meyer (2013:19) who found that board size has a positive association with performance of the firm. The positive effect implies that board size is an important factor which can cause unexpected improvement especially in the governance, firm value and trading activities of firms in the market which can affect the overall performance and value of the firm. This finding also supports the initial findings from Klein (1998:275); Laing and Weir (1999:457) Kajola (2008:16) in which board size according to the authors have a positive effect on the firm value. Market capitalization on the other hand has positive and significant effect at 1% on the performance of the firms at the Nigeria Stock Exchange. The positive effect and significance of market capitalization implies that market capitalization has a positive relationship with the market value of the firms at the stock

exchange market. Market capitalization is the product of share price and outstanding share capital. The way and manner in which companies are managed and directed is directly correlated with the market value of the firm and this market value is synonymous with market capitalization. The result revealed that market capitalization was the only variable that is significant in all the three methods (pool OLS, Random or fixed effect and GMM) employed in this study. This suggests that it is the most important variable in determining firm value although it revealed an inverse relationship. This result compliment Loltianya (2012:1) who found a weak relationship between market capitalization and banks performance but against Al-Mubarak and Hamdan (2016:121) who found a positive relationship between corporate governance variables and market capitalization. The result also supports Bhat et'al (2018:1196) who revealed that market capitalization has positive and significant association with firm value. Directors remunerations revealed a positive relationship all through the three methods but only significant under GMM method. This might be because GMM method corrected all the likely errors such as simultaneity, endogeneity and multi-collinearity that might have arose as earlier specified in this study. The result supports Bauer, Frijns, Otten and Tourani-Rad (2008:236) who asserted that well remunerated directors have a positive correlation with an improved corporate governance. Also, Darmadi (2011:1) who revealed that good executive compensation and firm value are positively correlated. Nyaoga, Kefah and Erick (2014:113) also stated that an effective remuneration structure adds value to the firm. By implication well paid workers and directors would be happy to support such company's overall goal through an improved corporate governance. Growth also showed a positive relationship to firm value under all the three methods but only significant under GMM method and this be associated with the same reason stated above that GMM corrects problems of simultaneity, endogeneity and multi-collinearity. It should also be noted that the growth of the firm under GMM fell compared to other two methods. This could also be attached to the same reason stated above. Other factors which may be internal or external such as poor corporate governance may cause the falling in the growth rate. This is consistent with Yoo and KIM (2015:15982) who revealed that high growth in the preceding year foster performance in the current years. The result supports Batchimeg (2017:22) who found a positive influence between growth in sales and firm performance. ROA also revealed a positive relationship under all the three methods but only significant under GMM method. This is consistent with Bhat et'al (2018:1196) who found a positive and significant association with firm value.

6.3 Objective 1b: Effect of Accounting Ratio on Firm Values in the Nigerian Listed Firms

Here, the study also begins with the analysis of the properties of the data by obtaining the descriptive statistics of all the variables used in the study. The descriptive statistics result is presented in table 6.6 below. Results showed that the mean and median values of all the variables are within their minimum and maximum values. This implies that the entire set of variables displayed a high level of consistency within the study period. In addition, by comparing the value of standard deviation of all the variables with their respective mean values, it can be deduced that Tobin-q, current ratio, ROA, Asset turnover ratio, debt equity ratio and EPS are stable over the study period as their standard deviation values (1.63, 7.37, 8.88, 21.88, 21.88 and 20.65) are higher than their mean values (1.15, 1.72, 5.58, 1.17, 1.17 and 4.68) respectively. Furthermore, results showed that two variables used in the study, Tobin-q and current ratio were positively skewed while ROA, DER, asset turnover and EPS were negatively skewed. This result is based on the report of the skewedness result. Another important feature of the data is kurtosis that measures the tallness of the shape of the distribution. Based on the descriptive result, Current asset, asset turnover ratio and debt equity ratio are leptokurtic, that is, they have extremely high height. Tobin's q and EPS are platokurtic that is they are averagely high, while the shape of ROA variables is mesokurtic, that is, flat-top. Finally, Jarque-bera results and its statistics showed that the null hypothesis of no normal distribution is rejected at 1%. This is not unexpected because of the heterogeneity nature of the panel data and the number of years the data covers which is less than 30. Also, this implies that the shape of all the variables is normal as the values of the skewness of all variables are less than one except Tobin's q and current ratio that are greater than one which implies that the two variables are not normally distributed.

Table 6.6: Descriptive statistics

	Tobin-Q	**Current Ratio**	**ROA**	**Asset Turn Over Ratio**	**Debt Equity Ratio**	**Earnings Per Share**
Mean	1.154466	1.724198	5.850229	1.176374	1.176374	4.686718
Median	0.850000	1.100000	4.615000	1.285000	1.285000	1.955000
Maximum	19.39000	120.0000	29.00000	36.82000	36.82000	87.16000
Minimum	0.050000	0.000000	-43.20000	-343.1700	-343.1700	-240.0000
Std. Dev.	1.630970	7.374022	8.886839	21.88386	21.88386	20.65425
Skewness	8.352585	15.84018	-0.735075	-14.89988	-14.89988	-6.109851
Kurtosis	86.06692	254.5585	8.198788	235.8536	235.8536	79.81531
Jarque-Bera	78372.67	701781.5	318.6437	11637.99	601604.7	66044.89
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	302.4700	451.7400	1532.760	672.6900	308.2100	1227.920
Sum Sq. Dev.	694.2765	14192.19	20612.71	6593.251	124993.8	111342.1
Observations	262	262	262	262	262	262

Source: Own research, 2019

The next step is to examine the degree of association among the variables. This is because a high level of correlation between two independent variables will result to multi-collinearity. To verify this claim, the study adopted correlation matrix and result is presented in table 6.7 below. In addition, the probability values that confirm the significant of the relationships are included. Results showed that there is no strong relationship among some variables as their correlation coefficients is less than 0.5 while there is a strong relationship among DER and Tobin's q, current ratio and firm value, asset turnover and firm value, asset turnover and current ratio, and EPS and DER where their coefficient is greater than 0.5. This implies the two variables must not be included in the same regression. The result is significant at 1%. Based on the direction of relationship among the variables, inverse relationship exists between asset turnover and ROA, DER and Asset turnover, current ratio and Tobin's q, DER and Tobin's q and Asset turnover and current ratio. While the relationship between ROA and DER, ROA and EPS and DER and Asset turnover are significant at 1% all other variables have positive relationships. While some are significant, others

are not. In general, the regression result may not be free of multicollinearity as there is strong relationship among some independent variables in the study.

Table 6.7: Correlation Matrix

	TQ	**Current Ratio**	**ROA**	**Asset Turn Over Ratio**	**Debt equity Ratio**	**Earnings per share**
Tobin's q	1.000000					

CR	-0.020420	1.000000				
	0.74	-----				
ROA	0.153575	0.047773	1.000000			
	0.01**	0.44	-----			
ASST	0.011518	-0.026165	-0.128868	1.000000		
	0.85	0.67	0.03**	-----		
DER	-0.005709	0.002489	0.213617	-0.169840	1.000000	
	0.92	0.96	0.00*	0.00*	-----	
EPS	0.158922	0.004759	0.326222	0.064775	0.033493	1.000000
	0.01**	0.93	0.00*	0.29	0.58	-----

Note: * & ** represent level of significance at 1% and 5% respectively.

Source: Own research, 2019

Furthermore, one of the major problems of time series data is non-stationarity. This implies the mean and variance of the variables are not constant over the study period. Therefore, if the non-stationarity is not accounted for in the estimation process, it may lead to spurious result which may have negative implication for policy and other decision making. To achieve this objective, panel unit root test was performed on the variables using three approaches Im, Pesaran & Chin, Levin, Lin & Chu and Fisher PP. This is because there is contradictory result between the first two approaches Im, Pesaran & Chin and Levin, Lin & Chu, which is against the rule-of-thumb that the

two approaches must have the same result. In this case, the third approach, Fisher pp, was employed. Results are presented in table 6.3. Results show that all the variables are stationary at 1% levels except DER that is stationary at 10% and EPS that is significant at 5% after first difference. Therefore, the null hypothesis of non- stationarity was rejected and the table is presented below:

Table 6.8: Unit root test

	Im, Pesaran and Chin			Levin Lin Chu		
Variables	Level	First Diff	Remarks	Level	First. Diff	Remarks
Tobin q	-10.7353*	-	I(0)	-94.7535*	-	I(0)
CR	-2.51170*	-	I(0)	-8.30052*	-	I(0)
Roa	-3.43876*	-	I(0)	-27.5227*	-	I(0)
Asst	-5.16608*	-	I(0)	-16.0754*	-	I(0)
Der	-1.41824***	-	I(0)	-3.43571*	-	I(0)

Note: *,** & *** represent level of significance at 1%, 5% and 10% respectively.

Source: Own research, 2019

Having examined the stationarity level of all the variables, the next step is to confirm the existence of long-run relationship among them which is Co-integration test. There are two approaches available for this test. The first is Pedroni Co-integration test while the second one is Kao residual Co-integration test. While Pedroni can handle seven variables at once, Kao residual can handle more than seven variables. Since the variables are six together with the dependent variable the study then employed Pedroni Co-integration test. The Co-integration result is presented in table 6.9 below. Results also showed that there is long-run relationship among the variables as the null hypothesis of no Co-integration is rejected at 1% level of significance.

Table 6.9: Panel Co-integration Test

	Statistic	**Prob.**	**Statistic**	**Prob.**
Panel v-Statistic	-3.922872	1.0000	-3.272113	0.9995
Panel rho-Statistic	5.775807	1.0000	4.815575	1.0000
Panel PP-Statistic	1.284185	0.9005	-5.333594	0.0000
Panel ADF-Statistic	5.110916	1.0000	1.476546	0.9301
Alternative hypothesis: individual AR coefs. (between-dimension)				
	Statistic	**Prob.**		
Group rho-Statistic	6.974951	1.0000		
Group PP-Statistic	-9.853178	0.0000		
Group ADF-Statistic	0.924141	0.8223		

Source: Own research, 2018

6.3.1 Result of Pooled OLS, Random effect and System- GMM

The last step in achieving objective one of this study is to estimate equation 5.12 earlier stated in chapter five of this study. To achieve this, three methods of estimation namely: Pool OLS, fixed/random effect and system Generalized Method of Moment (system-GMM) were used. The choice of either fixed or random effect is informed by Hausman test. After conducting the Hausman specification test, the result favors the random effect over fixed effect method of estimation. The choice of pool OLS and random effect are for comparison. In order to correct for the likely issues of simultaneity, endogeneity and multi-collinearity that may arise due to the problem of bi- directional causality between the independent and the dependent variables and also the relationship between the independent variables and the error term, the system-GMM was also employed. Results of the three estimations are presented in table 6.10 below. From the table, five measures of accounting ratio, namely: current ratio, ROA, DER, asset turnover ratio and EPS, together with Tobin's q as the measure of dependent variable which represent firm value. Result showed, for the pool OLS, current ratio and debt equity ratio have a negative impact on the firm

value while other variables have a positive impact on firm value. All variables are statistically insignificant except ROA and EPS that are significant at a 10% level of significance.

Result of random effect is similar to that of pool OLS. The result of the two estimation techniques is the same. For the random effect, current ratio and debt equity ratio also have negative impact on firm value, though not statistically significant. All other variables have positive impacts on firm value and not statistically significant. Looking at the results of the two estimation techniques, it can be deduced that, both current ratio and debt equity ratio as a proxy for accounting ratio, have negative impact on firm value. This implies that capital structure of a firm especially the ratio of debt to equity has a direct impact on value of the firm. Mathematically, for pool OLS, a 1% increase in current ratio and debt equity ratio will increase firm value by 0.66% and 0.59% respectively. For random effect as well, a 1% increase in current ratio and debt equity ratio increase firm value by 0.95% and 0.65% respectively. The story is different for system-GMM results. All variables have positive relationship with firm value and they are statistically significant. According to the result, although the effect of all the variables are small they all have a positive impact. For example there is a 1% increase in current ratio, ROA, asset turnover, DER and EPS increased value of the firm by 0.07%, 0.002%, 0.015%, 0.003% and 0.003% respectively. In general, considering all accounting ratios used in this study, the study revealed that accounting ratios have a positive and significant effect on firm value. This means that accounting ratios enhance and improve value of the firm. This was consistent with the prior studies of: (Baba, 2013:1; Karaca and Savsar, 2015:56; Rajhans and Kawalpreet, 2013:70. In order to correct for the problem of endogeneity, simultaneity and multicollinearity, the lag of all the independent variables and the dependent variable were used as instruments both at level and at difference. For diagnostic test, j-statistic that measures the validity of instrument used is presented in the table. The result confirmed the validity of the instruments and the conditions for using the approach.

Table 6.10: Dependent Variable: Tobin-q

Variables	Pool OLS	Random Effect	GMM
Constant	0.978 (0.00)*		
Tobin-q(-1)			0.49 (0.00)*
Current Ratio	-0.005 (0.66)	-0.0007 (0.95)	0.07 (0.00)*
Return on Assets	0.022 (0.06)***	0.020 (0.12)	0.002 (0.00)*
Asset turn over	0.004 (0.83)	0.0005 (0.98)	0.015 (0.00)*
Debt equity ratio	-0.002 (0.59)	-0.001 (0.65)	0.003 (0.018)**
Earnings per share	0.009 (0.07)***	0.003 (0.49)	0.003 (0.00)*
R^2	0.03	0.01	
Adj. R^2	0.02	-0.004	
F-Statistic	2.07 (0.06)***	0.74 (0.58)	
Hausman		8.09 (0.15)	
J-Statistic			21.19
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	262	262	208

Note: *, ** & *** represent level of significance at 1%, 5% and 10% respectively.

Source: Own research, 2019

6.3.2 Effect of accounting ratio variables on firm value of the selected firms

The result in Table 6.10 above determines the effect of selected accounting ratio variables (Current ratio, ROA, Asset turnover, Debt equity ratio and EPS) on firm value of selected listed firms in Nigeria. Table 6.10 above presents the result from the pooled ordinary least square analysis which is used to determine the effect of accounting ratios on firm value. The results of Pooled Least Square in table 6.10 consist of the estimated model which was presented under the coefficient. The result was interesting with varying statistical significance levels for some of the coefficients while some of them were also statistically insignificant. The adjusted R-squared of 0.02 was obtained from the regression model. This suggests that all the explanatory variables (current ratio, ROA, asset turnover, debt equity ratio, EPS) account for 2% variations in the dependent variable (Tobin's q). The F-statistics which test for the overall significance of the model is relatively high and provides a good fit for the estimated model as its probability is significant at 10% in the model. The Durbin Watson (DW) statistics was generally high satisfactory indicating non-existence of autocorrelation problem in the model. The explanatory variables are therefore considered one after the other. The results of the pooled OLS and random effect showed that current ratio revealed a positive and insignificant relationship with firm value as against Kurtaran, Turan Kurtaran, Kurtaran Çelik and Temizer (2015:35) who revealed a significant and negative relationship between current ratio and firm value. But under GMM it reveals positive and significant result of the sampled listed firms. This is consistent with Birgili and Duzer (2010:74). The GMM result is consistent with the result of Wu and (Liu 2012:1) who revealed that cash liquidity and stocks liquidity are positively and significantly related with firm performance against the result of pool OLS and random effect. ROA revealed a positive and significant relationship under pool OLS and GMM at 10% and at 1% respectively. This is consistent with the result of Karakus and Bozkurt (2017:27) who revealed a positively and significantly relationship between ROA and firm value. Asset turnover showed a positive and insignificant relationship under pool OLS and random effect but the result under GMM is positive and significant at 1%. This is in support of Birgili and Duzer (2010:74) who revealed a positive but significant relationship with asset turnover. While debt to equity ratio revealed an insignificant and inverse relationship under pool OLS and random effect it also showed a positive and significant relationship under GMM. This result of GMM is in support of Rajhans and Kawalpreet (2013:70) who found a positive and significant between capital structure, WACC and firm value. Birgili and Duzer (2010:74) also support the OLS and random

effect result. EPS revealed a positive and significant result under Pool OLS and system GMM at 10% and 1% respectively. This is consistent Birgili and Duzer (2010:74) who revealed a positive but significant relationship with firm value. The result pertaining to random effect also revealed a positive but insignificant result.

6.4 Objective 1a &1b: Impact of Corporate Governance and Accounting Ratio on Firm Values in the Nigerian Listed Firms

This is the main empirical objective one that the study looked at which examined the corporate governance and accounting ratios by combining their variables. For a better understanding and to capture objective one, the study examines the impact of corporate governance and accounting ratio on firm values in the Nigerian listed firms, the achievement of this objective would need to analyze the properties of the data together. The first step the study did was to obtain the descriptive statistics of all the variables used in the study. The descriptive statistics provides information about the measures of central tendencies such as mean, median and the minimum and maximum values. The mean value measures the average value of all the variables used while the median measures the middle value. In addition, the descriptive statistics also provides information about the measures of dispersion such as standard deviations, skewness, kurtosis, and Jarque-Bera and the probability of Jarque-Bera. Standard deviation explains the deviation of the value of each of the variables from the mean. While skewness measures the shape of the distribution, kurtosis measures the height of the distribution. Jaque-Bera and its probability are used to confirm the validity or otherwise of the normal distribution. The descriptive statistics result is presented in table 6.11 below.

Results showed that the mean and median values of all the variables were within their minimum and maximum values. This implies the variables displayed a high level of consistency within the study period. In addition, by comparing the value of standard deviation of all the variables with their respective mean values, it can be deduced that market capitalization, board size and director's remuneration are stable over the study period as their standard deviation values (0.87, 7.84 and 1.05) are lower than their mean values (7.15, 16.05 and 4.50) respectively. All other variables (Tobin's q, Growth of the firm, ROA, DER and EPS) demonstrated stability during the study period as their standard deviation values of (1,64, 8.05, 8.92,21.97 and 20.78) were greater than the mean values of (1.16,0.83, 5.86, 1.15 and 4.63) respectively. Furthermore, results showed that out of all the eight variables used in the study, Tobin-q, board size, growth and market

capitalization were positively skewed while directors' remuneration, ROA, DER and EPS were negatively skewed. This result is based on the report of the skewedness result. Another important feature of the data is kurtosis that measures the tallness of the shape of the distribution. Based on the descriptive result, growth of the firms and DER are leptokurtic, that is, they have extremely high height. Tobin-q and EPS are platokurtic, while the shape of remaining variables are mesokurtic, that is, flat-top. Finally, Jarque-bera results and its statistics showed that the null hypothesis of no normal distribution is rejected at 1%. This is so because of the heterogeneity nature of the panel data and the number of years under study which is less than 30 years. Also, this implies the shape of all the variables is not normal as the values of their skewness are greater than one.

Table 6.11: Descriptive Statistics

	Tobin-Q	Market Capitalization	Board Size	Directors Remuneration	Growth	ROA	Debt Equity Ratio	Earnings Per Share
Mean	1.1571	7.1568	16.0538	4.5014	0.8308	5.8609	1.1543	4.6296
Median	0.8500	7.2563	12.0000	4.6732	0.1850	4.6150	1.2800	1.8750
Maxi	19.3900	9.1167	35.0000	6.0036	122.910	29.0000	36.8200	87.160
Mini	0.0500	5.3609	7.0000	0.0000	-13.0000	-43.2000	-343.17	-240.00
Std. Dev	1.6368	0.8725	7.8438	1.0531	8.0545	8.9185	21.967	20.779
Skewnes	8.3225	0.0989	1.0768	-3.1986	13.7877	-0.7363	-14.841	-6.0430
Kurtosis	85.4457	2.3696	3.2282	14.3742	206.165	8.1489	234.035	78.448
Jarq-Ber	76639.0	4.7281	50.8149	1844.910	455397	310.701	587802	63250.
Prob	0.0000	0.0940	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sum	300.870	1860.774	4174.00	1170.388	216.020	1523.84	300.120	1203.7
Sum Sq.	693.905	197.1922	15935.2	287.2765	16802.9	20600.9	124982	111835
Observat	260	260	260	260	260	260	260	260

Source: Own research, 2019

The next step is to examine the degree of association among the variables. This is because there might be a high level of correlation between two independent variables which would result to multi-collinearity. To clarify this, the study adopted correlation matrix and the results are presented in table 6.12. In addition, their corresponding probability values that confirm the significant of the relationships are included. Results showed that there is no strong relationship among all the variables as their correlation coefficients is less than 0.5 except for growth and DER where their

coefficient is 0.9. This implies the two variables must not be included in the same regression. The result is significant at 1%. Based on the direction of relationship among the variables, inverse relationship exists between market and growth, board sizes and growth, Tobin-q and DER, board sizes and EPS, growth and ROA, growth and DER and Growth and EPS. While the relationship between growth and ROA and Growth and DER are significant at 1%. All other variables have positive relationships. While some are significant, others are insignificant. In general, the regression result will be free of multicollinearity as there is no strong relationship among the independent variables in the study. This is arrived at because majority of the Probability value are less than 0.5.

Table 6.12: Correlation Matrix

	TQ	**Mkt. Cap**	**Board Size**	**Directors Rem.**	**Growth**	**ROA**	**Debt/ Equity**	**EPS**
Tobin's q	1.00							

Mkt cap	0.30	1.00						
	(0.00)*	-----						
Board	0.09	0.28	1.00					
	(0.14)	(0.00)*	-----					
Dir, rem	0.08	0.13	-0.08	1.00				
	(0.15)	(0.02)**	(0.15)	-----				
Growth	0.001	-0.07	-0.05	0.02	1.00			
	(0.98)	(0.21)	(0.35)	(0.78)	-----			
ROA	0.15	0.37	0.14	0.09	-0.22	1.00		
	(0.01)*	(0.00)*	(0.01)*	(0.13)	(0.00)*	-----		
DER	-0.005	0.08	0.01	0.02	-0.91	0.21	1.00	
	(0.93)	(0.15)	(0.86)	(0.74)	(0.00)*	(0.00)*	-----	
EPS	0.16	0.25	-0.06	0.05	-0.01	0.32	0.03	1.00
	(0.00)*	(0.00)*	(0.30)	(0.42)	(0.76)	(0.00)*	(0.58)	-----

Note: * & ** represent level of significance at 1% and 5% respectively.

Source: Own research, 2019

Furthermore, one of the major problems of time series data is non-stationarity. This implies the mean and variance of the variables are not constant over the study period. Therefore, if the non-stationarity is not accounted for in the estimation process, it may lead to spurious result which may have negative implication for policy making and other stakeholders who may want to rely on or use the information provided by this study. A panel unit root test was performed on the variables using three approaches Im, Pesaran & Chin, Levin, Lin & Chu and Fisher PP. This is because if there is contradictory result between the first two approaches Im, Pesaran & Chin and Levin, Lin & Chu, which is against the rule-of-thumb that two approaches must have the same result. In this case, the third approach, Fisher pp, was employed. Results are presented in table 6.13. Results show that all the variables are stationary at levels except EPS that is significant after first difference. Therefore, the null hypothesis of non- stationarity was rejected.

Table 6.13: Panel Unit Root Test

	Im, Pesaran and Chin			**Levin Lin Chu**			**Fisher PP**		
Variables	Level	First Diff	Rmks	Level	First. Diff	Rmks	Level	First Diff	Rmks
Tobin q	-10.74*	-	I(0)	-94.75*	-	I(0)			
Board				-1.94**	-	I(0)	-1.55***	-	I(0)
Mkt	-1.03	-3.18*	I(1)	-6.16*	-	I(0)	-2.65*	-	I(0)
Roa	-3.44*	-	I(0)	-27.52*	-	I(0)			
Director	-9.46*	-	I(0)	-46.00*	-	I(0)			
Growth	-16.30*	-	I(0)	-108.85*	-	I(0)			
Der	-1.42***	-	I(0)	-3.44*	-	I(0)			
Eps				-0.49	-8.12*	I(1)	0.09	-2.03**	I(1)

Note: *, ** & * represent level of significance at 1%, 5% and 10% respectively.**

Source: Own research, 2019

Having examined the stationarity level of all the variables, the next step is to confirm the existence of long-run relationship among the variables which is co-integration test. There are two approaches available for this test. The first is Pedroni co-integration test while the second one is Kao residual

co-integration test. While Pedroni can handle seven variables at once, Kao residual can handle more than seven variables. Due to this shortcoming, the study employed Kao residual co-integration test as against Pedroni co-integration due to the number of variables involved. The co-integration result is presented in table 6.14. Result showed that there is long-run relationship among the variables as the null hypothesis of no Co-integration is rejected at 1% level of significance.

Table 6.14: Co-integration Result (Kao Residual Co-integration Test)

	t-Statistic	Prob.
ADF	-14.35407	0.0000
Residual variance	1.115672	
HAC variance	1.370691	

Source: Own research, 2019

The last step in achieving objective one of this study is to estimate equation 5.12. To achieve this, three methods of estimation namely: Pool OLS, fixed/random effect and system Generalized Method of Moment (system-GMM) were employed. The choice of either fixed or random effect is informed by Hausman test. After conducting the Hausman specification test, the results favor random effect over fixed effect method of estimation. The choice of pool OLS and random effect are for comparison. In order to correct for the likely issues of simultaneity, endogeneity and multi-collinearity that may arise due to the problem of bi- directional causality between the independent and the dependent variables and also the relationship between the independent variables and the error term, the system-GMM was also employed. Results of the three estimations are presented in table 6.15. From the table, four measures of corporate governance, namely: market capitalization, board sizes, director remuneration and growth of the firm were used while three measures of accounting ratio, namely: ROA, DER and EPS, were used. Results showed that for the pool OLS, growth of the firm and DER have negative impacts on the firm value (measured by Tobin-q). All other variables have positive impacts on firm value. All variables are statistically insignificant except market capitalization that is significant at 1% level of significance.

Result of random effect is similar to that of pool OLS. The result of the two estimation techniques is the same. For the random effect, growths of the firm and DER also have negative impact on firm

value, though not statistically significant. All other variables have positive impacts on firm value and not statistically significant except market capitalization that is significant at 1%. Looking at the results of the two estimation techniques, it can be deduced that market capitalization, as a proxy for corporate governance, has the greatest impact on firm value. For pool OLS, a 1% increase in market capitalization will increase firm value by 0.49%. For random effect as well, a 1% increase in market capitalization will increase firm value by 0.43%. The story is different for system-GMM results. Market capitalization is the only variable that has an inverse relationship with firm value. According to the result, 1% increase in market capitalization will reduce firm value by 0.61%. For all other variables, they have positive impact on firm value. While all other variables are statistically significant at both 1% and 5%, ROA and EPS are not statistically significant. In addition, unlike the result of Pool OLS and random effect, board size (2.49%) has the highest impact on firm value under system- GMM while ROA has the least impact of 0.001% on firm Value. In order to correct for the problem of endogeneity, simultaneity and multicollinearity, the lag of all the independent variables and the dependent variable were used as instruments both at level and difference. For diagnostic test, j-statistic that measures the validity of instrument used is presented in the table. The result confirmed the validity of the instruments and the conditions for using the approach.

Table 6.15: Regression Result

Dependent Variable: Tobin-q

Variables	Pool OLS	Random Effect	System-GMM
Constant	-2.86 (0.00)*	-2.23 (0.05)**	
Tobin-q(-1)			0.46 (0.00)*
MKT	0.49 (0.00)*	0.43 (0.00)*	-0.61 (0.00)*
BOARD	0.004 (0.73)	0.004 (0.79)	2.49 (0.05)**
DIRECTOR	0.07 (0.41)	0.02 (0.75)	0.03 (0.00)*
GROWTH	-0.007 (0.81)	-0.003 (0.92)	0.41 (0.00)*
ROA	0.004 (0.71)	0.009 (0.45)	0.001 (0.82)
DER	-0.005 (0.63)	-0.003 (0.78)	0.14 (0.00)*
EPS	0.006 (0.18)	0.003 (0.54)	0.003 (0.12)
R^2	0.10	0.04	
Adj. R^2	0.08	0.02	
F-Statistic	2.07 0.00*	1.86 0.07***	
Hausman		9.97 (0.18)	
J-Statistic			18.83
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	260	260	208

Note: *, ** & *** represent level of significance at 1%, 5% and 10% respectively.

Source: Own research, 2019

6.4.1 The effect corporate governance, accounting ratios on firm value of the selected firms in Nigeria.

The result above determines the effect of selected corporate governance variables and accounting ratio variables (Board size, growth, director's remunerations, market capitalization, ROA, Debt equity ratio and EPS) on firm value of selected listed firms in Nigeria. Table 6.15 above presents the result from the pooled ordinary least square analysis which is used to determine the effect of accounting ratios on firm value. The results of Pooled Least Square in table 6.15 consist of the estimated model and the model was presented under the coefficient. The result was mixed. While some are statistically significant, some of the results were also statistically insignificant. Some of the results are positive while some are not. The adjusted R-squared of 0.08 was obtained from the regression model. This suggests that all the explanatory variables (Board size, growth, director's remunerations, market capitalization, ROA, debt equity ratio, EPS) account for 8% variations in the dependent variable (Tobin's q). The F-statistics which test for the overall significance of the model is relatively high and provides a good fit for the estimated model as its probability is significant at 1% in the model. The Durbin Watson (DW) statistics were generally high and satisfactory, indicating non-existence of autocorrelation problem in the model. The explanatory variables are therefore considered one after the other in relation to the dependent variable. It can be deduced that market capitalization was the only variable that is significant in all the three methods employed in this study although showed an inverse relation under GMM. This revealed that market capitalization is very important variable that determines firm value. The implication is that better or improved corporate governance of any firm is directly related to stock price and market value of such firm. The result from pool OLS and random effect supports Bhat et'al (2018: 1196) and Al-Mubarak and Hamdan (2016:121) who revealed that market capitalization has positive and significant relationship with firm value. Loltianya (2012:1) shares similar views and found a significant and weak relationship between market capitalization and banks performance. Board size revealed under pool OLS and Random effect a positive and insignificant relationship. The result supports Tornyeva and Wereko (2012:95) and Wet and Meyer (2013:19) who found that board size has a positive association with the performance of the firm. Also, the result under system-GMM is supported by Klein (1998: 275); Laing and Weir (1999:457) and Kajola (2008:16)

who found a positive and significant relationship in terms of the firm value. Director's remunerations revealed a positive relationship all through the three methods but only significant under GMM method. This might be because GMM method corrected all the likely errors stated earlier in this chapter. The result under system GMM is consistent with Darmadi (2011:1) who revealed that good executive compensation and firm value are significantly and positively correlated. Nyaoga, Kefah and Erick (2014:113) also stated that an effective remuneration structure add value to the firm which is also similar to the result from pool OLS and Random effect. Salary structure and other remuneration is a significant and main issue in the Nigeria system the needed to be restructured if truly good corporate governance would be attained. Well-remunerated directors would be more committed to the overall goal and success of the company. Growth also showed a positive relationship to firm value under all the three methods but only significant under GMM method. This may be connected to system-GMM has taken into consideration likely issues of simultaneity, endogeneity and multi-collinearity that may arise due to the problem of bi- directional causality between the independent and the dependent variables and also the relationship between the independent variables and the error term. It should also be noted that the growth of the firm under GMM increased considerably compared to other two methods. This could also be attached to the same reason stated above related to the effectiveness of system-GMM or other factors associated with good corporate governance is in place. Other factors other than good corporate governance, which may be internal or external, may cause the increment in the growth rate of the selected firms. Such factors are sales increment, new innovation, market penetration strategy and other sale promotions. This is consistent with Yoo and Kim (2015:15982) who revealed that high growth rate in the preceding year foster performance in the current years. Low growth rate in the preceding year might make the management to sit tight and that might foster performance. The system –GMM's result supports Batchimeg (2017:22) who found a positive and significant influence between growth in sales and firm performance. ROA also revealed a positive and insignificant relationship under all the three methods as against the findings of Karakus and Bozkurt (2017:27) and Bhat et'al (2018:1196) who found a positive and significant association with firm value. While debt to equity ratio revealed an insignificant and inverse relationship under pool OLS and random effect it also showed a positive and significant relationship under GMM. This result of GMM is in support of Rajhans and Kawalpreet (2013:70) who found a positive and significance between capital structure, WACC and firm value and Birgili

and Duzer (2010:74) also support the OLS and random effect result. EPS revealed a positive and insignificant result under all the three methods. This is inconsistent with Birgili and Duzer (2010:74) who revealed a positive but significant relationship with firm value. The company EPS could be insignificantly affected when the company profit and the number of shareholders keep moving in opposite direction.

6.5 Objective 2: Dynamic Interaction among Corporate Governance, Accounting Ratio and Firm Value in the Nigeria Listed Firms.

This section presents the empirical analysis that ascertained the dynamic interaction among corporate governance, accounting ratio and firm value of some selected firms in the Nigeria stock exchange. It is divided into sub-sections. Sub-section one presents panel unit root of the three variables. Sub-section two reveals lag length selection criteria. Sub-section three reports panel co-integration test of the three variables. Sub-section four presents the Panel Vector Error Correction Model for the three variables. Sub section five reveals the Impulse Response Functions.

6.5.1 Panel Unit Root Test

This section refers to table 6.13 without unnecessary repetition because the same variables are considered. The Im, Pesaran and Shin (IPS) unit root test, the Levin, Lin and Chu (2002) (LLS) specification as well as Fisher PP are used to test for the presence of unit root in the panel data. Since the characteristics of the sectors employed in the study are likely to be heterogeneous in nature, IPS test was preferred to LLC unit root test and Fisher PP. However, LLC unit root test results and Fisher PP were used to confirm IPS test results. But when there is contradictory result from first two the thumb rule is any two must be the same. Individual Intercept was included in the test equation in all the mentioned unit root tests. The lag length for each variable was automatically selected by Schwartz Information Criterion (SIC) and Individual Intercept was included in test equation for all variables. Newey-West method was equally applied to choose the optimal lag length or bandwidth. The results are presented in table 6.13. Results show that all the variables are stationary at levels except EPS that is significant after first difference.

According to the Im-Pesaran Shin (IPS), W-statistic results showed that the logs of corporate governance and accounting ratios contain unit roots at their levels and at first difference. This means that the variables are stationary at level and at first differences. This way, when a regression is run on these variables in their first differences, there will be an absence of spurious outcomes. Meaning that the variables are integrated of order one, they are I(0) and 1(1) processes. Based on

the above findings the precondition for the co-integration test by Kao co-integration test was satisfied for the first difference of the logs of all the three variables.

6.5.2 Lag length selection criteria.

The importance of determining the appropriate optimal lag length prior to the test of co-integration in order to avoid these problems of misspecification and loss of the degrees of freedom. This optimal lag order was determined with the sequential modified Likelihood Ratio test statistics (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC), and Hannan-Quinn Information Criterion (HQIC) as shown in Table 6.14. Result showed that different criterion chose different lag length. However, Schwarz Information Criterion (SC) result is adjudged to be the best in situation where different lag length was picked by the lag criteria. Before conducting the tests, the appropriate lag selection criterion was conducted and the result is presented in table 6.16. The results showed that different criterion chose different lag length. However, Schwarz Information Criterion (SC) result is adjudged to be the best in situation where different lag length were picked by the lag criteria. Going by this, lag one is chosen as a result of SC result and it is used in estimating VECM.

Table 6.16: Lag selection criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-3218.501	NA	1.19e+09	43.60136	43.76337	43.66718
1	-2126.993	2050.263	1112.441	29.71613	31.17423*	30.30855
2	-2013.541	200.8414	574.2024	29.04785	31.80205	30.16687*
3	-1940.100	122.0714	514.6076	28.92027	32.97055	30.56589
4	-1859.744	124.8774*	427.1672*	28.69924*	34.04562	30.87146

Source: Own research, 2019

6.5.3 Panel Co-Integration Test

Based on the results of panel unit root test and Co-integration test presented in tables 6.13 and 6.14, the study adopted VECM because of the presence long-run relationship among the variables. This implies long-run relationship among corporate governance variables, accounting ratios and firm value of listed firms in Nigeria exists. Please refer to co-integration table in 6.14 in this study.

6.5.4 Panel Vector Error Correction Co-Integrating Results

The presence of Co-integration between variables suggests a long run relationship amongst the variables under consideration. This implies that the study can estimate Panel Vector Error Correction Model (PVECM) which requires the variables to be linked in the short run and the long run. The results of the long-run relationship among corporate governance variables, accounting ratios and value of listed firms in the period from 2008 to 2017 are presented in the table below:

Table 6.17: Co-integrating Result of the PVECM Equation

Variables	coefficient	Standard Error	T-statistic
TQ- Dep. Variable			
MKT (-1)	-0.617133	0.075389	-8.185931
DIRECTOR(-1)	0.030011	0.010804	2.777670
ROA(-1)	0.001063	0.004799	0.220939
EPS (-1)	0.003672	0.002352	1.560970
MKT- Dep. Variable			
TQ(-1)	0.020562	0.021634	0.950456
DIRECTOR(-1)	0.078806	0.021929	3.593719
ROA (-1)	0.007996	0.000611	1309713
EPS (-1)	0.002154	0.002045	1.053484
ROA- Dep Variable			
TQ (-1)	0.439777	1.2227183	0.358363
MKT (-1)	5.375176	3.195190	1.682271
DIRECTOR (-1)	-0.887346	0.523171	-1.696091
EPS (-1)	-0.054932	0.152181	-0.360964
EPS- Dep. Variable			
TQ (-1)	0.713154	0.216868	3.288416
MKT (-1)	19.43604	0.742059	26.19206
DIRECTOR (-1)	-20.93479	0.868295	-23.48831
ROA (-1)	0.480918	0.028341	16.96884
DIRETOR- Dep Var.			
TQ (-1)	0.263981	0.091462	2.886244
MKT (-1)	1.980854	0.189523	10.45177
ROA (-1)	0.013184	0.011085	1.189300
EPS (-1)	-0.026293	0.012165	-2.161482

Source: Own research, 2019

Table 6.17 above reports the summary of the long- run interaction of five variables within the context of the PVECM estimation. In the first equation, the firm value of the selected listed firms under study is shown to be negatively and significantly related to market capitalization. The equation also revealed a significant positive relationship between the value of the listed firms and director's remuneration, ROA and EPS. The equation shows that while market capitalization revealed negative long-run negative effect on firm value of listed firm director's remuneration,

ROA and EPS showed a positive long-run relationship with firm value. This is consistent with the findings with regards to the most recent prior empirical studies on corporate governance, accounting ratios and firm value. Queisari and Ahmadi (2016:1), Loltianya (2012:1), Al-Mubarak and Hamdan (2016:121), Azees (2015:180), Karakus and Bozkurt (2017:27), Asiri and Hameed (2014:1) among others concluded a mixed result among all the variables in relation to value of the firm. However, the result show a significant and positive relationship with corporate governance variables and accounting ratios. However, Loltianya (2012:1) found a weak relationship between market capitalization and firm value which is similar to this finding. Others found a positive and significant relationship between EPS, ROA, and director's remunerations and firm value of a company.

The second equation revealed the relationship of market capitalization with other variables. Here market capitalization revealed a positive and statistically significant relationship with all other variables. The equation shows a long-run relationship between market capitalization and firm value represented by Tobin's q, ROA, director's remunerations, and EPS as all the variables have positive impact on market value of the firm represented by market capitalization. This result is consistent with the result of studies by Al-Mubarak and Hamdan (2016:121); Loltianya (2012:1) who have established that there is a positive relationship between corporate governance variables and market capitalization.

The third equation, ROA relates positively with the both firm value and market capitalization and not statistically significant while ROA has a negative and insignificant relationship with director's remuneration and EPS in the long run. The overall result show the interaction of the three variables based on the evidence from the study, which indicates that the firm value as represented by ROA has mixed result. While some are positive others have a negative relationship in the long run. The findings are similar to Al-Haddad, Al-Sufy and Al-Zurqan (2011:55) also found a positive relationship between ROA and corporate governance and Azees (2015:180) who also found no association with firm performance thereby providing a mixed conclusion as justified in the above table.

In the fourth equation, EPS relates positively with the both firm value (TQ), market capitalization, ROA and is statistically significant with ROA but has an insignificant relationship with TQ and market capitalization in the long run. However, the situation is different under director's remuneration which revealed a negative and insignificant relationship with EPS. On the overall,

the interaction of the variables based on the evidence from the study indicates that the firm value as represented by EPS revealed a long-run positive relationship with firm value, market capitalization and ROA and a long run negative relationship with director's remunerations. This is in accordance to the views of Chandren, Ahmad and Ali (2015:344), Ayesha etal (2015:201) have established that there is a positive and significant relationship between EPS and corporate governance variables and Nyaoga, Kefah and Erick (2014:113) found no significant relationship between director's remunerations and firm performance as represented by EPS.

The fifth equation revealed the relationship between director's remuneration to other variables. It shows a positive and significant relationship with firm value and ROA while EPS revealed an inverse and statistically significant relationship, market capitalization shows a positive and insignificant relationship with director's remunerations. This is in conformity with aperiori expectation and in support of Nyaoga, Kefah and Erick (2014:113) who found no significant relationship between director's remunerations and firm performance. This is because when company has poor remuneration structure it would definitely affect the performance of that organization. However, the report presented by Yatim (2009:1), JIA and Chen (2007:1) report differed because the author found that there was a positive and significant relationship between director's remunerations and firm value. This can be attributed to when there is a strong remuneration structure and directors are well paid, it would definitely motivate employees to put in their best thereby improve firm value in the long-run.

In conclusion, it can be deduced that the market capitalization is an important factor in determining firm value both in the short-run and long-run because it is the only variable that revealed the highest number of long-run relationship as revealed from the T-statistics results in the table 6.17 above. The result also shows that ROA has a positive and statistical significant relationship with each variable under different dependent variables in the long run. Also, all variables employed are positively and statistically significant to firm value except market capitalization that is inversely related. There are some cases when stock price or share price will not grow alongside firm value. This can be likened to when value of firms listed at the Nigeria stock market crashed as a result of wrong valuation of stock price. Other reason can be attributed to window dressing of figures in the financial statement. These could be the reasons behind inverse relationship between market capitalization and firm value.

6.5.5 Impulse Response Function

This is an attempt to examine the response of other variables to shock to any of other variables. As a result of this, each of the variables is treated as endogenous variables. There are two approaches to achieving this objective. The first one is Vector Auto-regression (VAR) and second, Vector Error Correction Model (VECM). There are conditions attached to the two approaches. If the variables are stationary at levels and there is no long-run relationship, VAR is suitable for dynamic interaction in this condition. However, if the variables are stationary after first difference and there is long-run relationship among the variables, VECM is suitable for analyzing dynamic interaction. Based on the results of panel unit root test and Co-integration test presented in tables 6.13 and 6.14, the study adopted VECM because of the presence long-run relationship among the variables. PVECM is estimated using lag order one. However, due to the complexity and ambiguity of VECM estimate, the study also supported the interpretation with impulse-response and variance-decomposition to explain the response of the variables to shocks in any of them. Results of impulse-response and variance-decomposition are presented in figure 6.1 and Table 6.17 above. Figure 6.1 showed graphically the response of all the variables to their respective shocks and their own shocks. The first row of figure 6.1 showed response of Tobin-q, as a measure of firm value, to all other variables. The first figure in row one is the response of Tobin-q to its own shock. Response of Tobin-q to other variables showed that shock to DER has negative impact on firm value. This is consistent with Enekwe (2015:20) who found negative and insignificant relationship between DER and firm performance while all other variables such as director remuneration, growth of the firm, ROA, market capitalization and EPS have positive impact on firm value as posited by Baba (2014:1) who found positive and significant relationship between liquidity and financial ratio of the firm. The results also show that firm value is indifferent to shocks to board size as its response is zero all through the periods. This supports the findings of Marashdeh (2014:1) who found no significant influence between board size and firm value.

Results in the second row showed the response of market capitalization to shocks to other variables. From the results, market response to shocks to firm value is positive but constant all through the periods under investigation. This is consistent with Al-Mubarak and Hamdan (2016:121) who found that a positive relationship exists between corporate governance variables and market capitalization throughout the period. Also, shocks to director remuneration, ROA and

EPS have a slightly positive impact on market capitalization which also supports the findings of Loltianya (2012:1) who found a weak relationship between market capitalization and banks performance. A shock to the growth of the firm has a negative impact on market capitalization. It also supports Loltianya (2012:1) who revealed that a shock to stock returns hinders growth of the firm negatively affecting market capitalization. Market capitalization is indifference to shocks to board sizes and DER. This inversely related to Hamdan (2016:121) who found a positive relationship between market capitalization and corporate governance variables.

Row three showed the response of board sizes to shocks to other variables. It can be deduced that a shock to Tobin-q, directors' remuneration, and growth of the firm have slightly negative impacts on board sizes. This result is similar to Weir etal (2002:1) who found no significant relationship between Tobin's q and board size while a shock to ROA and EPS have positive impacts, however, the impact is fluctuating over the period. This confirms the result obtained by Ebere, Ibanichuka and Ogbonna (2016:34) who found that ROA and EPS are positively and significantly related. Lastly, while a shock to market capitalization has a negative impact on board size, board size is indifferent to a shock to DER which is closely related with the result of Loltianya (2012:1) who found a weak relationship between market capitalization and firm performance.

Result from fourth row showed the response of director's remuneration to shocks to other variables. From the result, the shock of directors' remuneration response to firm value is positive but constant all through the period under review. This is consistent with Yatim (2009:1) who revealed a positive and significant relationship between director's remuneration and firm performance. Also, shock to market capitalization and growth are slightly negative impact on directors' remuneration. This is conterary to the views of Yatim (2009:1) who found a positive and significant relationship between director's remunerations and growth. A shock to board size is slightly positive at the beginning but later indifferent to a shock to director' remuneration, ROA and EPS which have slightly positive impact on director's remuneration while debt equity ratio is indifference to shock from director's remuneration all through the period under investigation. This is also similar to Darmadi (2011:1) who found a positive association between director's remunerations and firm value as against Nyaoga, Kefah and Erick (2014:113) who found an insignificant relationship between director's remunerations and firm performance.

Row five showed response of yearly growth of the listed firms under investigation to shocks to other variables. It can be deduced that a shock to Tobin's q is positive but is constant all through the period under investigation while market capitalization negatively fluctuated but was later constant. Batchimeg (2017:22) who found a positive influence between growth in sales and firm performance. Meanwhile board size, director's remuneration and EPS have slightly negative impact on growth of the companies under investigation as against Batchimeg (2017:22) who found a positive influence between growth in sales and firm performance. However, ROA and debtor equity ratio have an indifference to shock from growth. This is similar to the findings of Adegbile (2015: 48) who found that that there was a positive relationship between DER and growth and an inverse relation between board size and growth.

From row six, the result showed the response of return on asset to a shock to variables. A shock to both Tobin's q and directors' remuneration have slightly positive impact on ROA. This corroborates the findings of Asiri and Hameed (2014:1) who found a significant relationship between Tobin q and ROA, DER and Tobin q and ROA and DER. Meanwhile, both board size and debtor to equity ratio showed an indifference response. DER ratio showed a sign of being positive which is similar to market capitalization which showed a positive but constant response to ROA all through the period under investigation. The result is similar to Bhat et'al (2018: 1196) who found a positive and significant between market capitalization and firm value. Growth of the firms and EPS respond negatively to ROA during the period under review. The response of EPS is slightly negative to ROA during the same period which confirms the findings of Meyer and Wet (2013:19) who found no significant relationship between EPS and firm performance represented by ROA.

Also result from seventh row showed the response of debt equity ratio to shocks to other variables. From the result shock from both Tobin's q and growth showed a negative response to debt equity ratio as against Adegbile (2015:48) who found a positive relationship between DER and growth. However, Banafa (2016:1) found that there was a negative correlation between DER and financial performance. Shock from both ROA and EPS showed a slightly positive response to the debt equity ratio and was contrary to the findings of Enekwe (2015:20) who found that between DER and ROA an inverse and insignificant relationship existed. However, the response from market capitalization is also positive but fluctuates to debt equity ratio. The shock from board size and director' remuneration is indifference to debt equity ratio but director's remuneration has a positive

sign. This supports the result of Darmadi (2011:1) who found a positive association between Director's remunerations and firm value.

Results from the last row which is row eight showed the response of earning per share to shocks to other variables. From the results, market response to shocks to firm value and board size is indifference all through the periods under investigation. This is similar to the result of Meyer and Wet (2013:19) who found that there was no significant relationship between EPS and firm value and between market capitalization and firm value there was a significant relationship and a negative correlation. It is also in support of Azees (2015:180) who found no association between EPS and firm performance. Also, shocks to growth and debtor to equity ratio have slightly positive impact on earnings per share related to the findings of Adegbile (2015:48)) who found that a positive relationship exists between DER and growth. A shock to director remuneration of the firm has negative impact on EPS while the responses of market capitalization and return on asset have a positive impact on earnings per share. This is similar to Ahmed and Hamdan (2015:21) who found that there was a negative impact between EPS and corporate governance variables.

Figure 6.1: Impulse-Response result of the dynamic Interaction among Corporate Governance, Accounting Ratio and Firm Value

Source: Own research, 2019

Table 6.18: Variance Decomposition Result of Dynamic Interaction among Corporate Governance, Accounting Ratio and Firm Value in the Nigerian Listed Firms.

TQ:									
Period	**S.E.**	**TQ**	**MKT**	**BOARD**	**DIRECTOR**	**GROWTH**	**ROA**	**DER**	**EPS**
1	0.510412	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.556100	90.86555	0.584821	0.111582	0.013578	5.252200	2.662424	0.371415	0.138429
3	0.723401	55.52106	1.639415	0.067265	0.576465	14.07159	7.806775	1.193847	19.12358
4	0.820531	45.22481	2.488338	0.052611	2.179897	16.87792	11.41919	1.430282	20.32696
5	0.919155	37.53264	2.670089	0.043413	2.528540	18.30991	12.94175	1.574947	24.39871
6	1.001085	32.98937	2.958815	0.036713	2.998691	19.78084	14.28758	1.702743	25.24525
7	1.080117	29.43305	3.087076	0.031997	3.223250	20.48086	15.11480	1.769009	26.85997
8	1.152193	26.86517	3.225219	0.028119	3.450323	21.24943	15.81337	1.838395	27.52996
9	1.220647	24.80607	3.312347	0.025216	3.600708	21.70427	16.32611	1.879946	28.34533
10	1.285200	23.17262	3.392929	0.022763	3.734204	22.15699	16.75430	1.921406	28.84479
MKT:									
Period	**S.E.**	**TQ**	**MKT**	**BOARD**	**DIRECTOR**	**GROWTH**	**ROA**	**DER**	**EPS**
1	0.226573	6.426495	93.57351	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.307222	7.128389	91.49557	0.062039	0.109081	0.041501	0.566524	0.005618	0.591282
3	0.370442	7.693481	91.02441	0.049207	0.171572	0.149717	0.489516	0.012909	0.409190
4	0.423792	7.899527	90.82880	0.053606	0.159060	0.151433	0.480964	0.013591	0.413018
5	0.471552	8.041696	90.72441	0.050567	0.170151	0.168035	0.476000	0.014961	0.354184
6	0.514661	8.131452	90.64497	0.051099	0.169507	0.175732	0.469310	0.015695	0.342236

7	0.554555	8.201740	90.59418	0.050184	0.172554	0.180487	0.467070	0.016129	0.317651
8	0.591693	8.251412	90.55204	0.050132	0.173211	0.185897	0.463806	0.016626	0.306874
9	0.626673	8.292491	90.52159	0.049750	0.174465	0.188516	0.462067	0.016864	0.294257
10	0.659780	8.324213	90.49559	0.049628	0.175143	0.191770	0.460273	0.017166	0.286217

BOARD

Period	**S.E.**	**TQ**	**MKT**	**BOARD**	**DIRECTOR**	**GROWTH**	**ROA**	**DER**	**EPS**
1	0.143205	0.014432	0.019754	99.96581	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.173871	0.137037	0.680198	93.16998	0.306674	0.079826	2.561486	0.000135	3.064664
3	0.204288	0.113344	0.588474	94.69025	0.227455	0.190684	1.899085	0.006410	2.284299
4	0.230671	0.148969	0.690296	93.59804	0.308889	0.152977	2.104236	0.006050	2.990546
5	0.252698	0.142827	0.672310	94.25320	0.258580	0.193372	1.967020	0.006913	2.505778
6	0.274042	0.153012	0.705684	94.17791	0.265213	0.180790	1.938928	0.005878	2.572581
7	0.292961	0.152022	0.703543	94.47762	0.241024	0.184109	1.906721	0.005439	2.329520
8	0.311251	0.156128	0.717010	94.54184	0.235193	0.184604	1.876977	0.004961	2.283291
9	0.328184	0.156436	0.719064	94.69515	0.223231	0.182675	1.860370	0.004559	2.158515
10	0.344487	0.158428	0.725549	94.76681	0.216927	0.184408	1.841461	0.004300	2.102120

DIRECTOR

Period	**S.E.**	**TQ**	**MKT**	**BOARD**	**DIRECTOR**	**GROWTH**	**ROA**	**DER**	**EPS**
1	1.140603	8.046867	0.197787	0.122062	91.63328	0.000000	0.000000	0.000000	0.000000
2	1.514045	8.934881	0.287273	0.186607	90.00461	0.033705	0.247121	0.000110	0.305692
3	1.820663	9.047380	0.256724	0.129841	90.05421	0.090390	0.200152	0.002815	0.218486
4	2.074345	9.078392	0.245633	0.111489	90.04368	0.077424	0.197420	0.002175	0.243789

5	2.305807	9.095434	0.231957	0.092166	90.09147	0.080445	0.202271	0.002138	0.204121
6	2.513587	9.109790	0.227324	0.081480	90.10292	0.080854	0.198536	0.002002	0.197095
7	2.706403	9.122593	0.221531	0.072603	90.12153	0.079594	0.199613	0.001869	0.180668
8	2.885969	9.129205	0.218342	0.066342	90.13176	0.080518	0.198587	0.001830	0.173413
9	3.055162	9.136764	0.215227	0.061197	90.14164	0.079799	0.198596	0.001747	0.165026
10	3.215400	9.141323	0.213022	0.057170	90.14881	0.080145	0.198259	0.001715	0.159554

GROWTH

Period	S.E.	TQ	MKT	BOARD	DIRECTOR	GROWTH	ROA	DER	EPS
1	10.95832	1.434386	0.887115	0.011867	0.175511	97.49112	0.000000	0.000000	0.000000
2	12.26697	1.692615	1.252840	0.014894	0.140741	96.33844	0.088454	0.051241	0.420772
3	14.62059	1.748745	1.381910	0.017971	0.169147	96.25490	0.068899	0.040142	0.318289
4	16.18348	1.817229	1.456563	0.018845	0.149084	96.02372	0.072077	0.044986	0.417498
5	17.75417	1.848749	1.524476	0.019778	0.147938	95.97100	0.060154	0.044536	0.383372
6	19.15743	1.879364	1.557377	0.020446	0.140375	95.89332	0.055316	0.044572	0.409229
7	20.46759	1.898301	1.593161	0.020781	0.137895	95.85567	0.049810	0.045144	0.399234
8	21.70475	1.915176	1.614101	0.021248	0.134302	95.81763	0.046136	0.044969	0.406437
9	22.86865	1.927598	1.634929	0.021444	0.132249	95.79157	0.042955	0.045305	0.403945
10	23.98091	1.938339	1.649712	0.021735	0.130151	95.76821	0.040433	0.045259	0.406156

ROA:

Period	S.E.	TQ	MKT	BOARD	DIRECTOR	GROWTH	ROA	DER	EPS
1	6.252240	0.325541	3.358249	0.140079	0.279290	7.914761	87.98208	0.000000	0.000000
2	7.842410	0.354747	3.111627	0.092148	1.308974	17.88601	76.68444	0.344579	0.217484
3	9.183655	0.331898	3.197264	0.089210	1.139172	15.68169	79.12618	0.251396	0.183196
4	10.44309	0.307689	3.198378	0.071127	1.348578	17.21404	77.39570	0.279032	0.185456
5	11.47562	0.301562	3.215783	0.064872	1.334629	16.94172	77.74014	0.244601	0.156692
6	12.47208	0.294272	3.229808	0.058192	1.390030	17.20798	77.43459	0.239199	0.145926
7	13.36861	0.289069	3.233638	0.054171	1.397303	17.24591	77.42658	0.226316	0.127011
8	14.22011	0.285837	3.243606	0.050629	1.419804	17.31483	77.34888	0.219601	0.116811
9	15.01879	0.282415	3.246074	0.048095	1.428671	17.36846	77.30789	0.213188	0.105204
10	15.77863	0.280324	3.251789	0.045851	1.440613	17.40341	77.27233	0.208219	0.097460

DER

Period	S.E.	TQ	MKT	BOARD	DIRECTOR	GROWTH	ROA	DER	EPS
1	30.29260	1.550371	0.946270	0.015568	0.253212	92.27783	0.143406	4.813341	0.000000
2	33.98061	1.847573	1.471977	0.018405	0.211130	91.25018	0.114151	4.481897	0.604683
3	40.52848	1.870752	1.643267	0.017563	0.243360	91.10219	0.157262	4.530095	0.435516
4	44.87622	1.949169	1.741660	0.014378	0.203714	90.94763	0.137919	4.412101	0.593428
5	49.24998	1.970719	1.835873	0.012413	0.198293	90.92004	0.138122	4.403213	0.521325
6	53.14741	2.004580	1.878053	0.010791	0.180411	90.86929	0.132305	4.362615	0.561952
7	56.78914	2.019981	1.928077	0.009572	0.174062	90.85772	0.130114	4.347427	0.533050

8	60.22762	2.037492	1.955017	0.008678	0.164991	90.83519	0.127503	4.329283	0.541844
9	63.45947	2.048554	1.984016	0.007904	0.159899	90.82643	0.125822	4.317161	0.530217
10	66.55124	2.059195	2.003326	0.007316	0.154538	90.81415	0.124225	4.306524	0.530727

EPS:

Period	**S.E.**	**TQ**	**MKT**	**BOARD**	**DIRECTOR**	**GROWTH**	**ROA**	**DER**	**EPS**
1	21.17644	0.032947	0.373374	0.017567	6.130726	0.048079	6.493668	0.096344	86.80729
2	22.85569	0.112075	1.669356	0.074508	5.566304	0.113493	8.303278	0.095749	84.06524
3	28.16045	0.080662	1.394915	0.058694	5.279666	0.145041	7.812222	0.082574	85.14623
4	30.43764	0.079950	1.759415	0.063669	5.038520	0.131864	8.667316	0.093087	84.16618
5	33.69953	0.065318	1.725071	0.052541	4.885127	0.169513	8.615286	0.084920	84.40222
6	36.01696	0.059987	1.850967	0.049202	4.774604	0.156156	8.961755	0.091017	84.05631
7	38.54352	0.052550	1.867075	0.042991	4.685583	0.172562	9.019790	0.087214	84.07223
8	40.72131	0.048208	1.921474	0.039629	4.621450	0.165667	9.177690	0.089627	83.93625
9	42.89054	0.043844	1.943714	0.035946	4.565263	0.171514	9.246571	0.088086	83.90506
10	44.90094	0.040667	1.973084	0.033378	4.522275	0.168905	9.333711	0.088892	83.83909

Sources:-Own-Research-2019.

In order to validate the impulse-response result, the study generated variance decomposition, which is a variant of impulse-response. The major difference between the two approaches is that while impulse –response shows the graphical representation of variables response to any of the endogenous variable, variance decomposition illustrate the value of variables' response to a shock to any of the endogenous variable. For variance decomposition, the sum of all the variables' response to a particular shock to any of the endogenous variable must equal to 100. The result of variance decomposition is presented in Table 6.17. The result of the first panel in Table 6.17 shows the response of measures of accounting ratio and corporate governance to firm value. The period is decomposed into the short-run, medium-run and long-run. It can be deduced from the result that EPS has the highest response to a shock to firm value. In the short-run, the response was very low; however, it increases from the third period through the medium-run to the long-run period. This implies EPS is the major determinant of firm value. A shock to firm value will have greater impact on EPS which is related to shareholders' worth. This agrees with shareholders wealth maximization theory. In addition, growth of the firm has the second highest response to a shock to firm value. The value of the shock was zero in the first period. It increases to 5% in the second period and further increases throughout the periods under study. However, the percentage increase of growth of the firm is low compared to growth rate of EPS. This implies that the sampled firms are growing but the growths are at slow rate. This corroborates the findings from the trend analysis that was carried out in this study. The growth could be in terms of profitability or return on asset or turnover. Furthermore, ROA has the third largest response to a shock to firm value. In the first period, its response to firm value shock is zero. However, in the second period, of the short-run, it receives 3% of decomposed shocks from firm value. In the medium-run and long-run periods, the percentage of decomposed shocks increased. However, the growth rate was low when compared with that of EPS and Growth of the firm. This implies that there is possibility that the firm's assets may be underutilized or substandard or obsolete which may affect production. Overall, board size has the lowest response to decomposed shocks from firm value as its response was zero throughout the periods under study. This implies that the size of the board is not an important determinant to firm value. This supports Guest (2009:385) who found an inverse relationship between board size and Tobin's q.

In the second panel of the result in Table 6.17, the panel depicted the responses of variables to a shock to market capitalization. From the result, it can be deduced that firm value has the highest

response to a shock to market capitalization in the short-run, medium-run and long-run periods. Unlike the other variables, in the first period, 6% of the decomposed shock was transmitted to firm value. This increases throughout the periods under study. However, while the percentages of the decomposed shocks to EPS, ROA, growth of the firm and director are less 1%, DER and board size have zero percent shock. This means that the ratios of debt to equity and the size of the board do not matter if good governance is in place the value of the firm would be enhanced. It does not matter whether the company has a large or small board size, what matters is accountability and transparency for both enhancement and sustainability of firm value. This also revealed that market capitalization is a major determinant of firm value. This is because it is closely related to market value of an organization. However, all the variables are positively related to market capitalization and have positive contribution to market capitalization however small it may be.

In the third panel, the results showed the responses of other variables to a shock to board size. It can be deduced that EPS has the highest response to the decomposed shock to board size. In the first period, its response was zero but later increases to 3% in the second period during the short-run. It later reduces to less than 2% in the medium-run and long-run periods. Also, ROA has the second largest response to a shock to board size. However, the percentage of the decomposed shock reduced throughout the periods. For Tobin-q, market capitalization, director remuneration, and growth, their percentage of decomposed shocks are less than 1%. For DER, its value is zero throughout the study periods. and EPS, their percentage of decomposed shocks is less than 1%. For DER, ROA and board size their value is zero throughout the periods under study.

In the fourth panel of the result in Table 6.17, the panel depicted the responses of variables to a shock to directors' remuneration. From the result, it can be deduced that firm value has the highest response to a shock to directors' remuneration in the short-run, medium-run and long-run periods. This confirms prior studies in the world literature that supports strong and positive relationship between director's remunerations and firm value (Yatim 2009:1). Unlike the other variables, in the first period, 8% of the decomposed shock was transmitted to firm value. This increases throughout the periods under study. However, while the percentages of the decomposed shocks to board size are less 1% in the short-run and reduces in the long-run to 0%, DER has zero percent shock all through the period under study. For growth, market capitalization and EPS, their percentage of decomposed shocks are less than 1%.

In the fifth panel, the results showed the responses of other variables to a shock to growth. It can be deduced that Tobin's q which is the measure of firm value has the highest response to the decomposed shock to growth and it increases all through the period under investigation. This is followed by market capitalization. It also increases all through the period. In the first period, it response was 1.4% and 0.8% in the short run but later increases to 1.8% in the second period during the medium-run. It later increases to less than 1.9% in the long-run periods. Also, market capitalization has the second largest response to a shock to growth. However, the percentage of the decomposed shock increases throughout the periods. For director remuneration, and EPS, their percentages of decomposed shocks are less than 1%. For DER, board size and ROA their values are zero throughout the study periods under study.

In the sixth panel, the result showed the responses of other variables to a shock to ROA. It reveals that growth has the highest response to the decomposed shock to ROA and this is followed by market capitalization and they all increase all through the period under investigation. DER and EPS In the first period, was zero response but later increases to less than 1% in the medium-run and long-run. Also, directors' remuneration has the third largest response to a shock to and it increases throughout the period. For Tobin-q, and board size, their percentage of decomposed shocks is less than 1% throughout the study periods.

Result from seventh panel showed the response of other variables to a shock to debtor equity ratio. It reveals that growth of the firm has the highest and a very sharp response to the decomposed shock to capital structure of the firm which is the debtor equity ratio and this is followed by Tobin's q and they all increase all through the period under study. This implies that capital structure of the firm is also important to value of the firm. Also, Market capitalization has the third largest response to a shock to DER with 0.9% in the short-run and it increases throughout the medium run and to the long run. Directors' remuneration, ROA and EPS In the first period, experienced a zero response but later increases to less than 1% in the medium-run and long-run and it increases throughout the period. For board size, it percentage of decomposed shocks is 0% throughout the study periods.

In the eighth panel, result showed the responses of other variables to a shock to earnings per share. It can be deduced that ROA has the highest response to the decomposed shock to EPS with 6.5% and it increases all through the period under study. Directors' remuneration has the second largest

response to shock to EPS. In the first period, market capitalization response was 0.4% but later increases to 1.7% in the middle-run and 1.9 in the long-run. For Tobin-q, board size and debt to equity ratio, their percentage of decomposed shocks are 0% and growth value is zero throughout the periods under study.

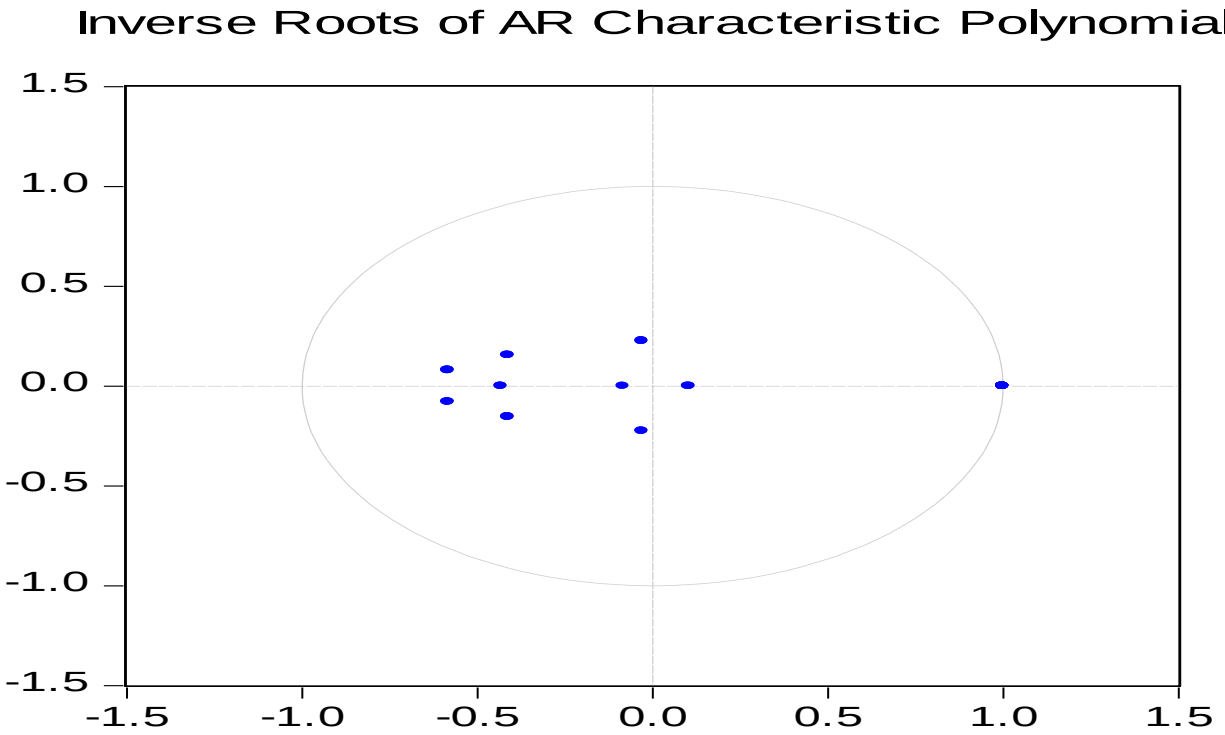


Figure 6.2: Stability Test Result

Source: Own result 2019

In order to determine the stability of the model, the study generates inverse roots AR characteristic polynomial. The diagram is presented in figure 6.2. From the diagram, the blue dot represents each data point covered by the study. The rule of thumb is that the dots must not move out of the boundary. Movement of any of the dots outside the circle signifies instability of the model. The diagram showed that all data points are within the circle which connotes the stability of the model.

6.5.6 Test for cross sectional dependence- Robustness checks

Cross- sectional dependence was examined by applying cross-sectional dependence (CD) test as stated in chapter five of this study. This test is imperative in dynamic panel analysis. It has been revealed that if there is sufficient cross-sectional dependence in panel data and this is ignored in

estimation, the decrease in estimation efficiency can become so large that the pooled OLS estimator may provide little gain over a simple OLS equation. This result is important as it applies that if one decides to pool a population of cross sections data and ignored cross-sectional dependence, the efficiency gained from it, in comparison to running simple OLS regression may largely diminish. This serves as a basis for estimating the test and the result are presented in table 6.19, 6.20 and 6.21 below.

Table 6.19:Cross section Dependence Test

Test	Statistics	d.f	Probability
Breusch-Pagan LM	454.9727*	253	0.0000
Pesaran scaled LM	7.956306*		0.0000
Pesaran CD	0.662707		0.5075

Note * represents significance at 1%

Source: author's analysis result from E-views

Table 6.20: Cross section Dependence Test

Test	Statistics	d.f	Probability
Breusch-Pagan LM	351.4519*	253	0.0000
Pesaran scaled LM	3.354248*		0.0008
Pesaran CD	-0.120894		0.9038

Note * represents significance at 1%

Source: author's analysis result from E-views

Table 6.21: Cross section Dependence Test

Test	Statistics	d.f	Probability
Breusch-Pagan LM	380.8308*	253	0.0000
Pesaran scaled LM	4.660296*		0.0000
Pesaran CD	0.088836		0.9292

Note * represents significance at 1%

Source: author's analysis result from E-views

From the result of the cross sectional dependence test, above, displays the hypothesis and provides information on the number of cross-sections and the period of observation in the panel. The next portion of the table contains the test results. The results of Breusch-Pagan LM test and Pesaran Scaled LM from the three objectives give common interpretation and they are significant. Also, the report of Pesaran CD is common and insignificant from all the three objectives. Because of the significance of Breusch- Pagan LM test and Pesaran scaled LM test at 1% the null hypothesis of no cross-section dependence in residuals are accepted. The study concludes that there is no serial correlation among the cross sections. Precisely, the first line contains results for the Breusch-Pagan LM test. The result from the table showed the test statistics of 454.9727, 351.4519 and 380.8308 with p-values of 0.0000 respectively and this gave a strong basis to accept the null hypothesis of no correlation at the level of significance of 1%. The test statistic results from Pesaran Scaled LM also gave a test statistic result of 7.956306, 3.354248 and 4.660296 with probability values of 0.0000, 0.0000 and 0.0008 respectively. This also provides a strong basis to accept the null hypothesis of no correlation at the level of significance of 1%. The Pesaran CD test statistics value revealed 0.662707, -0.120894 and 0.088836 respectively. This provides the strongly basis of rejecting the null hypothesis because they revealed insignificance result. Since the "T" in the panel is relatively large compared to the "N", attention is being focused on the result from the first two which indicated that the hypothesis of cross sectional independence in the dataset is not violated and there is no need to account for cross sectional dependence across all the sectors at the Nigeria Stock Exchange Market.

6.6 Presentation of Sensitivity Analysis Result- robustness check

The sensitivity analysis for model from 5.41 to 5.50 is presented in the table 6.21 to 6.24 below. It revealed how sensitive firm value is to variations to different explanatory variables employed in the study. Here, the study employed different variables as dependent variables in order to study how sensitive they are to changes to other variables. This was part of the robustness tests that were stated in chapter five of this study. The study picked those variables that are commonly used in the literature to proxy firm value. The variables are market capitalization, ROA, EPS and director's remunerations. Others such as ROE, ROTA, EVA etc. are not employed in this study.

6.6.1 Sensitivity analysis of the market capitalization to other variables

The result in the table 6.21 showed how sensitive the market capitalization variation to firm value and other variables employed in this study. Table 6.21 Pool OLS and fixed effect regression results revealed that the models are of good fit with the adjusted R-squared which is the coefficient of determination of 26% and 89% respectively. This shows that about 89% of the variations in the stock value and market value of each firm are explained by market capitalization. F-statistics which is the overall significance of the models also showed that the model is statistically significant at 1% level. The Durbin Watson statistics 0.20 and 0.76 respectively which revealed the presence of non-serial correlation among the variables used in the model. Findings Here revealed that it is even better to have market capitalization as the dependent variable than Tobin's q employed in the literature because the result under Pool OLS and fixed effect is better than the result arrived at when Tobin's q was employed. However, the fact still remain that Tobin's q has been proven in the literature better employed as firm value than other variables employed in the study. Further study can employ market capitalization as the dependent variable. Furthermore, to correct the shortcomings of Pool OLS and Fixed or random effect the study employed system-GMM. From pool OLS result the result is also better compare to original result under Tobin's q. Market capitalization is positive and significant between firm values as measured by Tobin's q, board size, director's remuneration, ROA and EPS. This is consistent with the findings of Al-Mubarak and Hamdan (2016:121) who found a positive relationship between market capitalization and corporate governance variables. The result under growth and DER is still revealed an insignificant but positive relationship. The majority of the results under fixed effect are positive but displayed an insignificant relationship except director's remuneration and ROA that are positive and significant with market capitalization. This result is similar to Loltianya (2012:1) who revealed a weak positive relationship between market capitalization and firm performance. The result under system-GMM is also good where all variables except Tobin's q and EPS that are positive and insignificant relationship with market capitalization. Others are significant and positive except growth and DER that are inversely related to market capitalization. The result is also similar to Al-Mubarak and Hamdan (2016:121) who found a positive relationship between market capitalization and corporate governance variables. Market capitalization therefore has proven that it is a good measure of firm value because it produced better results when considered as dependent variable.

Sensitivity Analysis

Table 6.22: Dependent Variable: Market Capitalization

Variables	Pool OLS	Fixed Effect	System-GMM
Constant	5.98 (0.00)*	7.86 (0.00)*	
Mkt (-1)			0.45 (0.00)*
Tobin-q	0.11 (0.00)*	-0.004 (0.73)	0.02 (0.34)
BOARD	0.02 (0.00)*	-0.05 (0.71)	0.23 (0.00)*
DIRECTOR	0.08 (0.04)**	0.03 (0.07)***	0.07 (0.00)*
GROWTH	0.01 (0.40)	-0.001 (0.90)	-0.03 (0.00)*
ROA	0.02 (0.00)*	0.009 (0.00)*	0.007 (0.00)*
DER	0.005 (0.33)	-0.0001 (0.97)	-0.01 (0.00)*
EPS	0.006 (0.01)*	0.001 (0.16)	0.002 (0.29)
R^2	0.28	0.91	
Adj. R^2	0.26	0.89	
F-Statistic	14.22 0.0000*	69.49 0.0000*	
Hausman		14.27 (0.04)**	
J-Statisti			22.94
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	260	260	208

Source: Own research, 2019

Note: * Denotes P-value at 1%, ** at 5% and *** at 10% respectively.

6.6.2 Sensitivity analysis of the ROA to other variables

The result in the table 6.22 revealed how sensitive is the variation of ROA to firm value and other variables employed in this study. Table 6.22 which shows Pool OLS and fixed effect regression results revealed that the models are of good fit with the adjusted R-squared coefficient of determination of 22% and 8% respectively. This shows that about 22% of the variations of the return on asset can be explained by all other explanatory variables. The fitness of the model is less strong and that led to further subject the study to a system-GMM that corrected all abnormalities. F-statistics which is the overall significance of the models also showed that the model is statistically significant at 1% level. The Durbin Watson statistics 0.20 and 0.76 respectively which revealed the presence of non-serial correlation among the variables used in the model. From pool OLS result, only market capitalization and EPS revealed a positive and significant relationship to the return on asset. This result is similar to Al-Haddad, Al-Sufy and AlZurqan (2011:55) who found a positive relationship between ROA and corporate governance. Other variable show a positive correlation and insignificance relationship, except growth of the firm which revealed an inverse and insignificant relationship to ROA. This is also similar to Azees (2015:180) who also used ROA as dependent variables to represent firm performance and found no association with other variables that represent firm performance.

There is a great improvement from system-GMM's result. Here all variables except Tobin's q, DER and EPS that showed an insignificant relationship with ROA out of which Tobin's q revealed a positive relationship while DER and EPS are inversely related. Only market capitalization showed a positive and significant relationship. This supports Bhat etal (2018:1196) who found that there was a significant and positive association between market capitalization and ROA as well as with firm value. Other variables such as Board size, growth and director's remunerations are significant and inversely correlated as against the findings of Ebere Ibanichuka and Ogbonna (2016:34) who found a positive and significant relationship between board size and ROA.

Table 6.23: Dependent Variable: Return on Asset

Variables	Pool OLS	Random Effect	GMM
Constant	-17.00 (0.00)*	-7.56 (0.23)	
ROA(-1)			0.84 (0.00)*
Tobin-q	0.11 (0.71)	0.36 (0.04)**	0.43 (0.72)
MKT	2.63 (0.00)*	1.66 (0.84)	5.37 (0.09)***
BOARD	0.09 (0.14)	0.03 (0.94)	-11.33 (0.07)***
DIRECTOR	0.43 (0.36)	-0.51 (0.00)*	-0.88 (0.09)***
GROWTH	-0.17 (0.23)	-0.18 (0.01)*	-0.54 (0.04)**
DER	0.01 (0.81)	2.73 (0.06)***	-0.15 (0.15)
EPS	0.11 (0.00)*	-1.59 (0.32)	-0.05 (0.71)
R^2	0.24	0.11	
Adj. R^2	0.22	0.08	
F-Statistic	11.66 0.0000*	3.84 0.0000*	
Hausman		8.52 (0.28)	
J-Statistic			16.47
Instrument Rank			27
Cross-sections Included	27		27
Total Observation	260		208

Source: Own research, 2019

Note: * Denotes P-value at 1%, ** at 5% and *** at 10% respectively.

6.6.3 Sensitivity analysis of the EPS to other variables

The result in the table 6.23 revealed how sensitive the variation of EPS is to firm value and other variables employed in this study. Table 6.23 Pool OLS and fixed effect regression results revealed that the models are of good fit with the adjusted R-squared coefficient of determination of 13% and 9% respectively. This shows that about 13% of the variations of the earnings per share can be explained by all other explanatory variables. The fitness of the model is not that strong considering

the report of R square that made the study to further subject the study to a system-GMM that would corrected and improve the model result. F-statistics which is the overall significance of the models also showed that the model is statistically significant at 1% level. The Durbin Watson statistics from OLS and random effect are 1.04 and 1.15 respectively which revealed the presence of non-serial correlation among the variables used in the model. However, to correct the shortcomings from the result of Pool OLS and Fixed or random effect, the study employed system-GMM. From pool OLS result, three variables are significance to EPS while market capitalization and ROA revealed a positive relationship (5% and 1% respectively) and board size revealed negative relationship at level. This is against the findings of Ahmed and Hamdan (2015:21) who found that there was a negative impact between EPS and corporate governance variables. The result further revealed a positive and insignificance relationships between Tobin's q growth and DER but director's remunerations showed a negative and insignificance result. The result under random effect is similar to that of pool OLS except for DER which revealed a negative and significant relationship.

The result under system-GMM is very good where all variables are significant at level although director's remunerations, growth and DER are inversely related other are positively related with the firm value as represented by EPS. This is similar to Al-Haddad, Al-Sufy and AlZurqan (2011:55) who found a positive relationship between EPS and corporate governance variables. This result also is an improvement on the original result under Tobin's q

Table 6.24: Dependent Variable: Earning per Share as a measure of firm value

Variables	Pool OLS	Random Effect	GMM
Constant	-21.05 (0.06)***	-21.21 (0.14)	
EPS(-1)			0.48 (0.00)*
Tobin-q	1.02 (0.18)	0.48 (0.53)	0.71 (0.00)*
MKT	4.09 (0.01)*	4.59 (0.02)**	19.43 (0.00)*
BOARD	-0.42 (0.00)*	-0.44 (0.05)**	4.57 (0.00)*
DIRECTOR	-0.46 (0.68)	-1.01 (0.38)	-20.39 (0.00)*
GROWTH	0.18 (0.61)	0.10 (0.77)	-0.63 (0.00)*
ROA	0.66 (0.00)*	0.67 (0.00)*	0.48 (0.00)*
DER	0.02 (0.85)	-0.001 (0.99)	-0.26 (0.00)*
R^2	0.15	0.11	
Adj. R^2	0.13	0.09	
F-Statistic	6.81 0.0000*	4.79 0.0000*	
Hausman		6.19 (0.51)	
J-Statistic			20.49
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	260	260	208

Source: Own research, 2019

Note: * Denotes P-value at 1%, ** at 5% and *** at 10% respectively.

6.6.4 Sensitivity analysis of the director's remunerations to other variables

The result in the Table 6.24 revealed how sensitive the variation of director's remunerations is to firm value and other variables employed in this study. The fitness of the model is not strong

considering the report of R square that made the study to further subject the study to a system-GMM analysis that would corrected and improve the model result. F-statistics which is the overall significance of the models also showed that the model is statistically significant at a 10% level. The Durbin Watson statistics from pool OLS and random effect are 1.14 and 1.26 respectively which revealed the presence of non-serial correlation among the variables used in the model. However, to correct the shortcomings from the result of Pool OLS and Fixed or random effect, the study employed system-GMM.

With regard to the pool OLS result, only two variables (market capitalization and board size) are significant to directors' remunerations, while market capitalization revealed a positive and significant relationship at 5% board size revealed an inverse and significant relationship at 5%. This is similar to the findings of Yatim (2009:1) who found between director's remunerations and corporate governance variables a positive and significant impact. The result further revealed a positive and insignificance relationships between Tobin's q, growth, ROA and DER while only EPS showed a negative and insignificance result. The result under random effect only revealed a positive and significant relationship while other variables revealed a positive and insignificant relationship except board size and EPS which are inversely related.

The result under system-GMM is very good where all variables are positively and significantly related except board size and EPS which are negatively related. However, only ROA revealed a positive and insignificant relationship with the dependent variable. This is similar to Yatim (2009:1) who found between director's remunerations and corporate governance variables a positive and significant relationship as against Nyaoga, Kefah and Erick (2014:113) who revealed an insignificant relationship between director's remunerations and firm performance. The mixed result could be attached to complexity of maintaining executive compensation of the directors which should be seen as a means of addressing the agency problem between managers and shareholders in order to improve firm performance and enhance firm value in the long run. (Bebchuk and Fried (2003:71). Management incentive compensation plans in any firm should be strong enough to reduce potential conflicts of interest between management and shareholders.

Table 6.25: Dependent Variable: Directors Remuneration as a measure of firm value

Variables	Pool OLS	Random Effect	GMM
Constant	3.44 (0.00)*	3.07 (0.00)*	
Director(-1)			0.07 (0.00)*
TQ	0.034 (0.41)	0.01 (0.78)	0.26 (0.00)*
MKT	0.17 (0.04)**	0.23 (0.04)**	1.98 (0.00)*
BOARD	-0.01 (0.04)**	-0.01 (0.13)	-0.11 (0.74)
GROWTH	0.02 (0.22)	0.02 (0.31)	-0.05 (0.00)*
ROA	0.007 (0.36)	0.004 (0.58)	0.01 (0.23)
DER	0.007 (0.28)	0.006 (0.39)	0.006 (0.03)**
EPS	-0.001 (0.68)	-0.003 (0.36)	-0.02 (0.03)**
R^2	0.04	0.03	
Adj. R^2	0.02	0.003	
F-Statistic	1.80 0.08***	1.13 0.34	
Hausman		5.10 (0.64)	
J-Statistic			22.53
Instrument Rank			27
Cross-sections Included	27	27	27
Total Observation	260	260	209

Source: Own research, 2019

Note: * Denotes P-value at 1%, ** at 5% and *** at 10% respectively.

Summary of the sensitivity analysis

Tables 6.21 to 6.24 above, indicate the results of the sensitivity analysis. The purpose of this sensitivity is to examine the response of each independent variables to different measures of firm value. This is done in order to validate different conclusions observed in the literature as to the best proxy for firm value. Different authors have used different measures sure as Tobin's q, EPS, EVA, ROA, director's remunerations, market capitalization etc. This study made use of Tobin's q because it was widely used than other variables. However, findings here revealed that market capitalization provides a better result than other variables. In table 6.21, market capitalization was used to replace Tobin-q as the dependent variable. Results showed that for pool OLS estimation technique, growth of the firm and DER are not statistically significant as against market capitalization which is the only significant variable when Tobin-q was used as the dependent variable. In addition, Hausman test chose fixed effect as against random effect in the original analysis. For fixed effect result, ROA and director's remuneration are statistically significant while other variables are not. For system-GMM, Tobin-q and EPS are not statistically significant. This is an improvement on the original result when Tobin-q was used as the dependent variable.

In table 6.22, ROA is used as the dependent variable as argued in the literature. The result of the pool OLS showed that market capitalization and EPS are the significant variables while other variables are not. For the random effect result, Tobin-q, director remuneration, DER, growth of the firm are the statistically significant variables while for system GMM, Tobin-q, DER and EPS are not statistically significant. Furthermore, table 6.23 presented the result of EPS as the dependent variable to replace Tobin-q in the base line model. Result from pool OLS estimation showed that market capitalization, board sizes and ROA are statistically significant. For random effect result, market capitalization, ROA and board size are significant. Lastly for system GMM, all the variables are statistically significant. This is also an improvement on the original result.

In Table 6.24 above, director's remuneration is used as the dependent variable in order to measure the response of other variables to this change. Using pool OLS estimation technique, it can be deduced that market capitalization and board size are the only significant variables. The story is different when random effect technique of estimation was used. In this scenario, market capitalization is the only statistically significant variable while ROA and board size are not

statistically significant under system GMM approach. In general, these results imply that variables are sensitive to measure of different firm value as there are improvements when other measures of firm value were used. This validates the arguments why there are mixed results in the literature why the same variable provides different results. Other reasons why there are mixed result could be attached to firms governance, industry in which the firm is situated, government policies, environment of the company and company's competitors. Disparity in all the factors mentioned above and lots more are very important factors to be considered if truly firms want to continue to enjoy value enhancement and value sustainability. Mixed results revealed from this study is in conformity with prior results on corporate governance variables, accounting ratio variables and firm value which can further be attached to the factors listed above.

6.7 Trend analysis and its interpretations

This section further looked at descriptive statistical tools where tables and graphs were employed to study the trend of the firms and general performance of each sector. Recall that general overview of the data over the period under study and in relation to variables employed were earlier examined. This highlighted if there were violations of the statistical assumptions before conclusions could be drawn and the degree of association among the variables could be examined. There is therefore a need to study the trend of individual firms representing each sector for better understanding of the firm growth and performance in Nigeria. To achieve this, the study converted accounting ratios and corporate governance variables employed to growth rate. All the graphs and the bar charts depict growth rates of the companies. It was also specified in chapter three of this study that accounting ratios reveal the performance of companies and also reveal value created by the company. Firms that were included in the sample were selected on the basis that they have their data up to date and available online as at the time of data gathering. Note that all sectors are represented except only financial sector, as earlier specified. The sectors and their related sampled companies as specified below and are considered one after the other.

Table 6.26: Sectors and their sampled listed firms

Sectors	Listed Firms (Plc)
Agriculture	Okomu PLc, PRESCO PLc
Conglomerate	UACN, John Holt, Transnational
Health care	M&B, Glaxo
ICT	Tripple G, NCR
Natural Resources	BOC gas PLc
Services	Learn Africa, Briscoe PLc, Aviation
Consumer Goods	Nestle, NASCON, Nig. Breweries, Cadbury, 7up, & Vitafoam.
Oil and Gas	Total, Forte Oil
Industrial goods	Laferge, Ashaka Cement Industry, Berger Paint
Construction/real estate	Julius Berger Nig., UAC

Source: Own research, 2019

6.7.1 Agricultural Sector

This sector is very important because of it direct link to food security and economic growth of any nation. It used to be mainstay of Nigeria before the advent of oil in 1950s unfortunately government has neglected it for oil and gas sector. Two companies represent this sector and they are Presco Plc and Okomu Plc as specified from Table 6.26. At firm level, the result from figure 6.2 below revealed that Okomu Plc needs to work on their liquidity as its current ratios from 2011 reveal a downward slope from the bar chart and the line graph. The growth became worse in 2017. Corrective measure must be taken as a continuous fall in liquidity growth rate may lead to the company's inability to meet its daily running of the business. The implication of this is that the extent to which the claim from short term creditors are covered by the company's assets that can be translated into cash within very short period of time is threatened. However, Presco plc initially experienced liquidity problem especially in 2009 that revealed negative growth of (-50) current ratio. This had been corrected on in 2016 which brought about a sharp and positive growth rate as revealed from the graph. It also revealed that Okomu plc changed its capital structure through borrowing in 2010 by increasing the company's leverage rate as revealed by zigzag nature of growth in gearing and debt to equity growth. Both companies need to determine their optimum capital structure that would take care of the interest rate of the supplier of debt and maximize shareholder's return. The changing nature of their capital structure may also inversely affect the return on equity and ROA. The firm value as depicted by market capitalization, ROA and Tobin's q of the two companies are alike. This could be as a result of the same sector. In general, it is

revealed from the performance indicators employed that the firms need an improvement as most of the variables show little or no growth in 2017. Government should provide functional sources of finance such as little or no interest loan for all farmers at different categories ranging from subsistence farming to merchandised farming. Not only has that but also provisioned of hybrid crops, fertilizer, follow up and market for the products. For instance, Okomu Plc can go for any agricultural loan or convert any of its current assets to keep their current ratio within it normal safety range of ratio 2:1. Other firms under this sector should also use the information provided here where necessary.

Figure 6.2: Explained the trend analysis in growth of Presco PLc between 2009 and 2017

Source: Own research, 2019

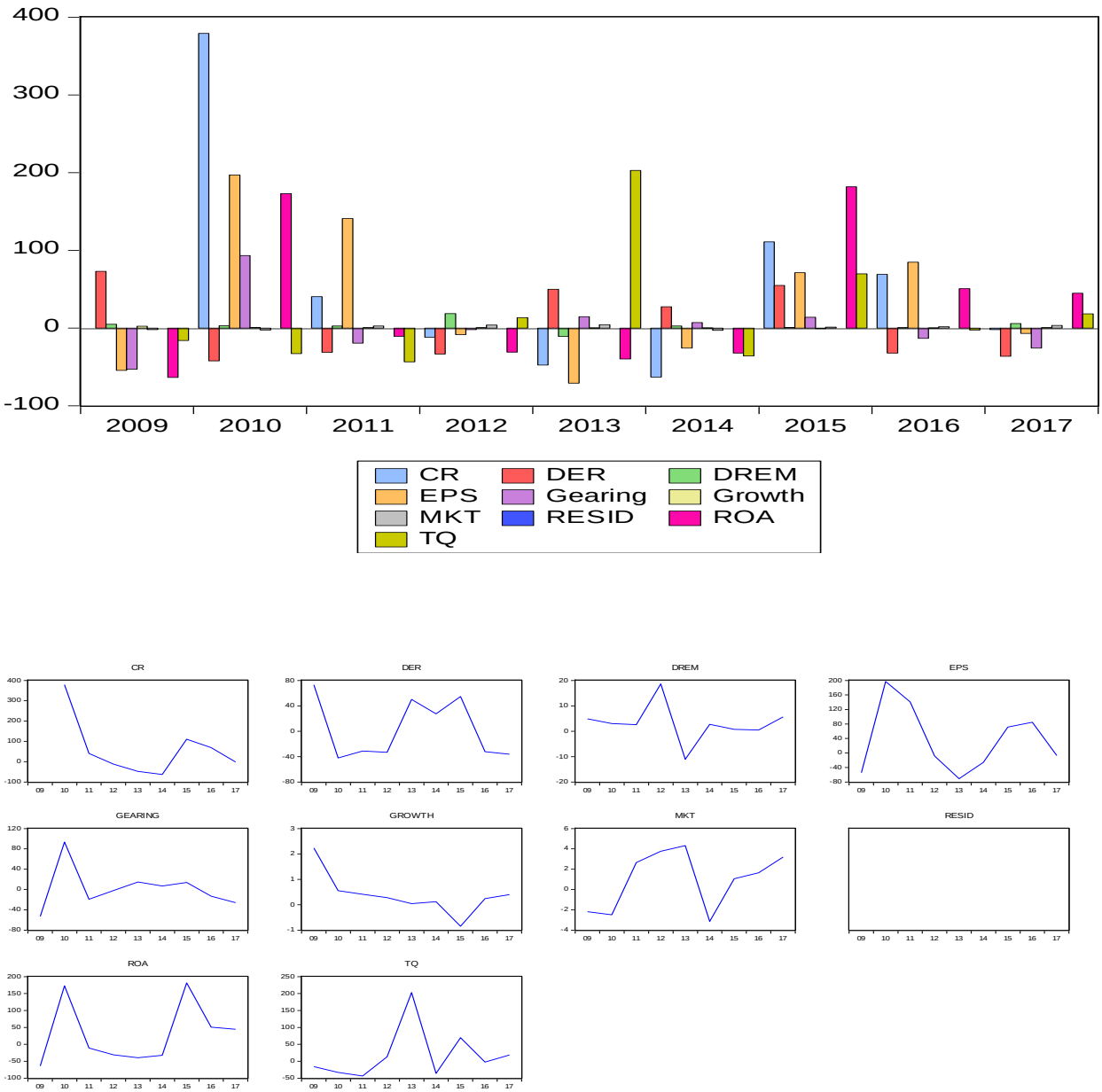


Figure 6.3: Explained the trend analysis in growth of OKOMU PLc between 2009 and 2017

Source: Own research, 2019

6.7.2 Conglomerate Sector

The conglomerate sector is also a very important sector but lately firms under this sector are experiencing either migration to neighboring countries or outright corporate failure. Most of them are living on their past glory and names as it is shown from the bar chart and the line graph from figure 6.4 below. The companies in this sector are not performing very well in terms of growth as

all the performance indicators show little or no growth and even the line graph revealed a downward and negative slope. This could be one of the major reasons why most of them moved to the neighboring countries. From the figure, value of the firms which is depicted by Tobin's q, ROA, market value of the stock price (market capitalization), EPS show a negative growth. All these indicate that firms under this sector need to improve on their corporate governance that would improve on overall performance. Generally, the performance of John Holt is better than UACN as all their indicators reveals negative growth. Government need to create a good working environment for firms to grow especially power supply is crucial to any economy that wants to survive. Internally, the company should work on their corporate governance that would improve value of all firms under this sector.

Figure 6.4: Explained the trend analysis in growth of John Holt PLc between 2009 and 2017

Source: Own research, 2019

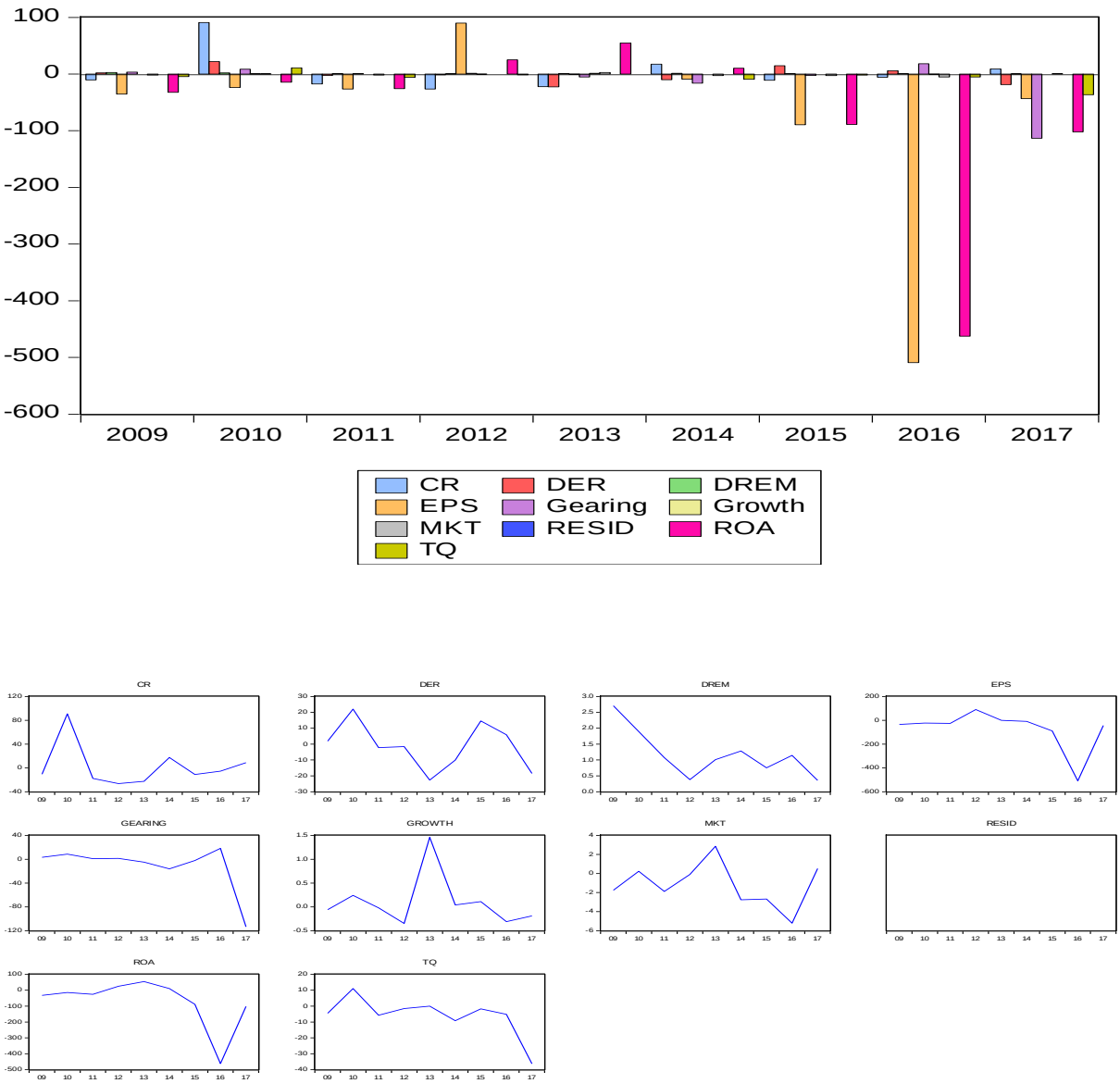


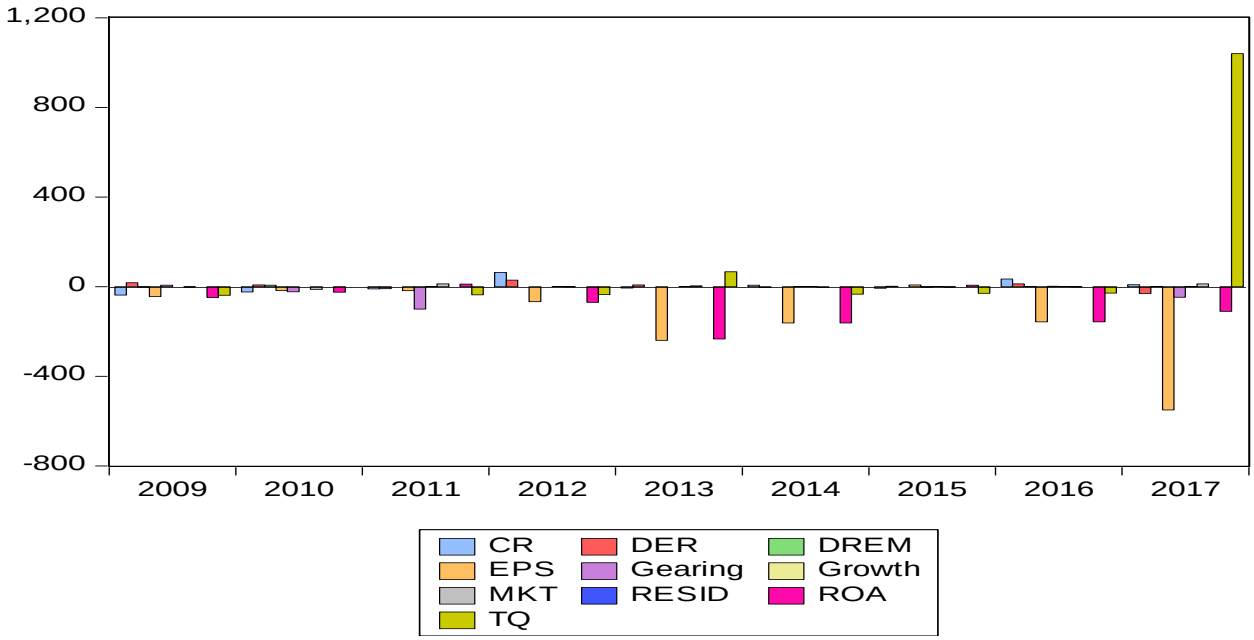
Figure 6.5: Explained the trend analysis in growth of UACN PLc between 2009 and 2017

Source: Own research, 2019

6.7.3 Health care Sector

The two firms in this sector also revealed little or no growth as depicted by the chart and the graphs. The current ratios from the two firms experienced an increase in 2012 to 2014 and later maintains little or no growth all through the remaining part of the years under study. This is a sign of solvency problem which could lead to bankruptcy and liquidation of the companies. Growth in turnover,

market value and firm value of the firms from late 2015 to 2017 may be as a result of the increase in director's remunerations especially in Glaxo smith Plc. Firm value as measured by Tobin's q of both companies improves in 2016 and 2017. Firm value and performance as measured by EPS, market capitalization and ROA increase in growth in 2016 and 2017 under Glaxo Smith while Under M&B they all revealed a negative growth. M&B therefore need to improve on their corporate governance. The negative growth may be as a result of fall in director's remunerations and the current ratio. The company therefore need to improve the remunerations policy of their directors and determine an optimum capital structure that would maximize shareholders returns. However, in this sector Glaxo-smith Plc seems better in terms of performance when compared to M&B plc in this sector because the performance indicators reveal negative growth as shown from chart.



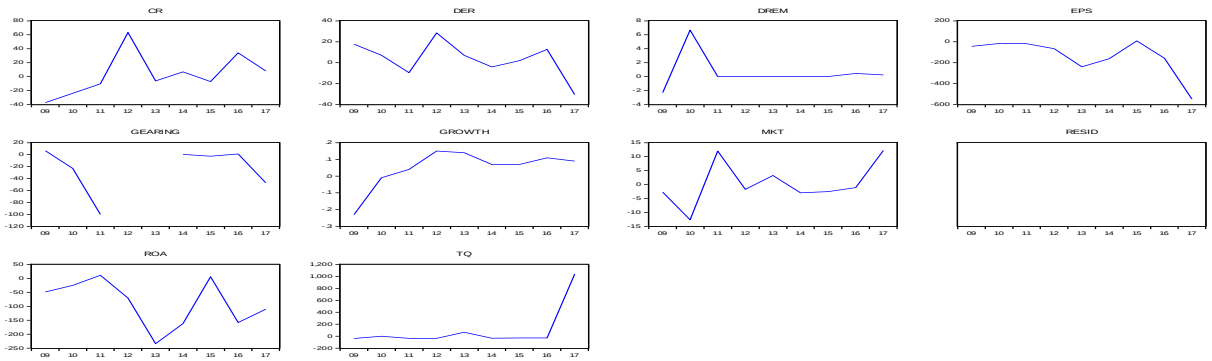


Figure 6.6: Explained the trend analysis in growth of M&B PLC between 2009 and 2017

Source: Own research, 2019

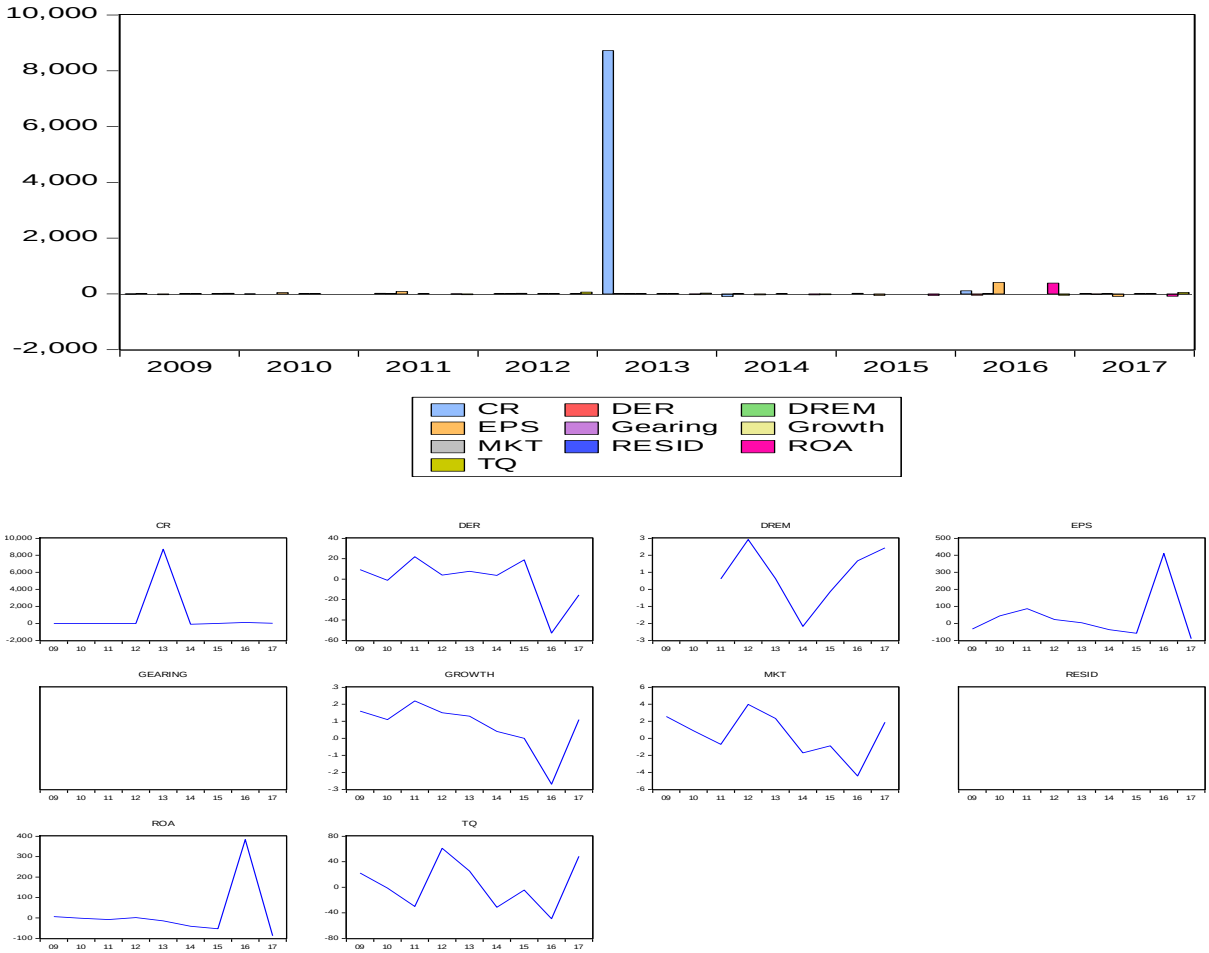


Figure 6.7: Explained the trend analysis in growth of GLAXO PLC between 2009-2017

Source: Own research, 2019

6.7.4 Information, Communication and Telecommunication Sector

The two companies from this sector were listed in 2012 and 2013 as revealed in Figure 6.7 below. The performance of the two firms are similar. In terms of solvency and meeting the claims of short term creditors NCR plc is better because it current ratio is growing while Tripple G plc maintain 0 growth except in the year 2012 to 2014. Growth of both companies as measured by their sales turnovers are falling drastically and their growths in value and performance of the company as measured by EPS, and ROA are decreasing while TQ and market capitalization revealed negative growth throughout. This is a negative sign which needs serious and immediate attention. Short

term loan may solve liquidity problem and improvement in the governance may solve the governance problem. These two firms as well as other firms from this sector should therefore work on their governance and determine optimum capital structure that would maximize firm value.

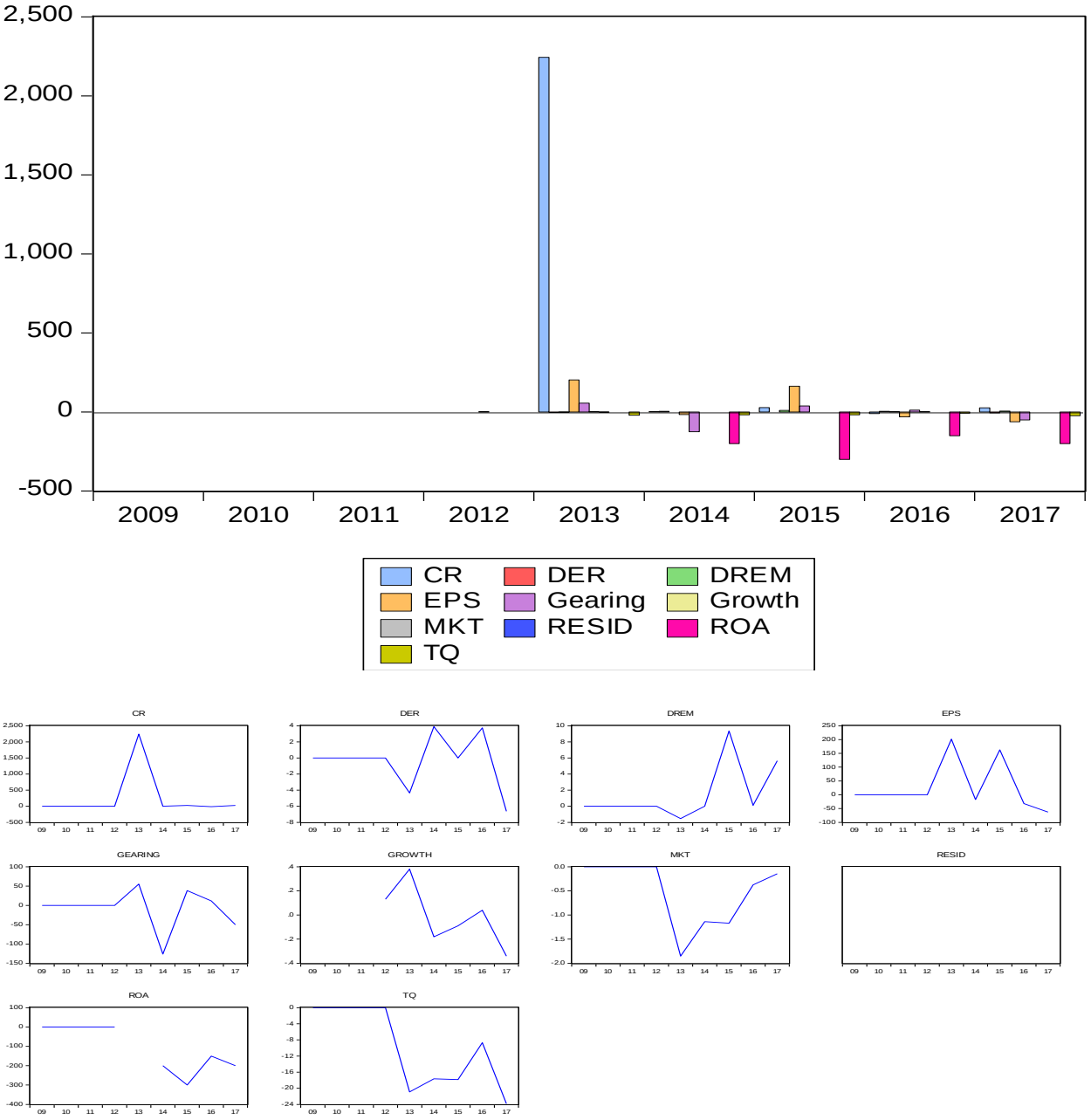


Figure 6.8: Explained the trend analysis in growth of Tripple G PLC between 2009-2017

Source: Own research, 2019

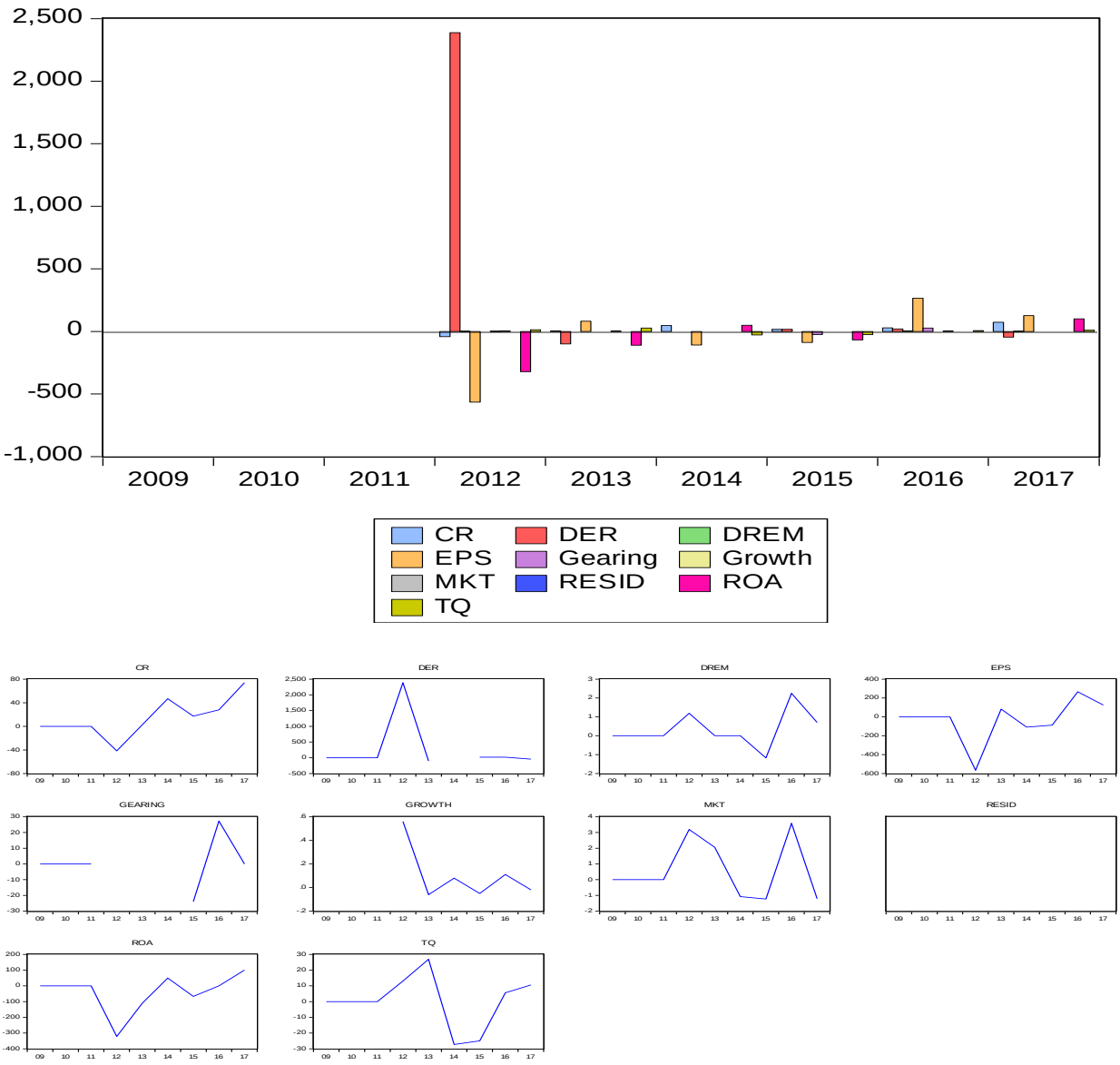


Figure 6.9: Explained the trend analysis in growth of NCR PLC between 2009 and 2017

Source: Own research, 2019

6.7.5 Natural Resources Sector

This company need to be cautious as most of the performance indicators reveal negative growth. For instance, firm value as represented by TQ, ROA, Market capitalization, sales growth and EPS are all growing at a diminishing rate. This signs are not good for the company and something must be done urgently to avert sudden failure of the company. The reasons for this poor result could be attached to a decreasing nature of growth of the company, gearing ratio which is negatively

affecting ROA. Although in 2016 and 2017 all the indicators started increasing especially EPS, the growth in debt need to be controlled to achieve optimum capital structure that would maximize ROE and ROA. Also, a drop in the value of the firm may also be attached to falling nature of the growth in current ratio and director's remunerations. This may negatively affect liquidity and the performance of the company. However, this company need debt financing to continue to survive and to create more value and better performance.

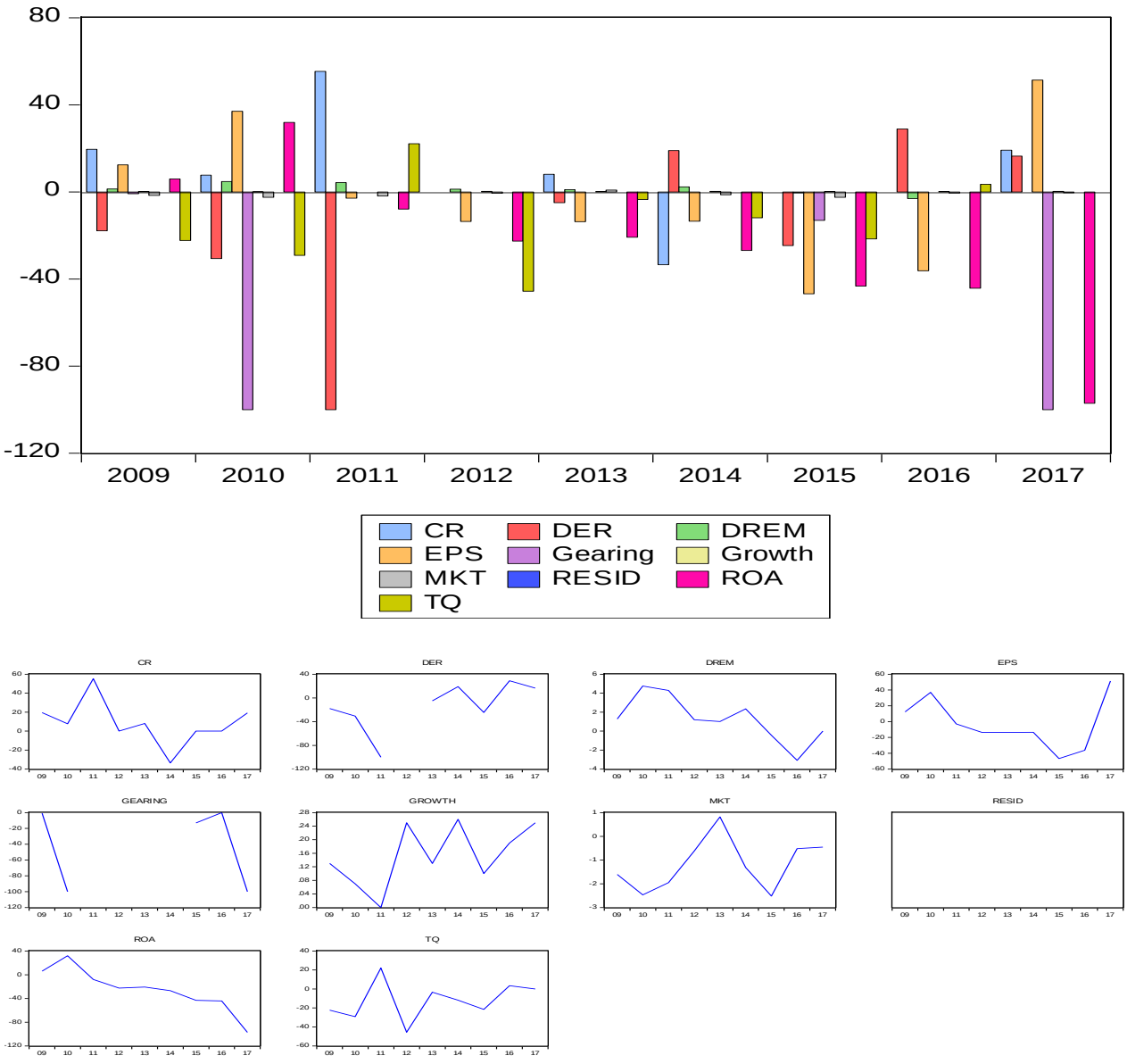
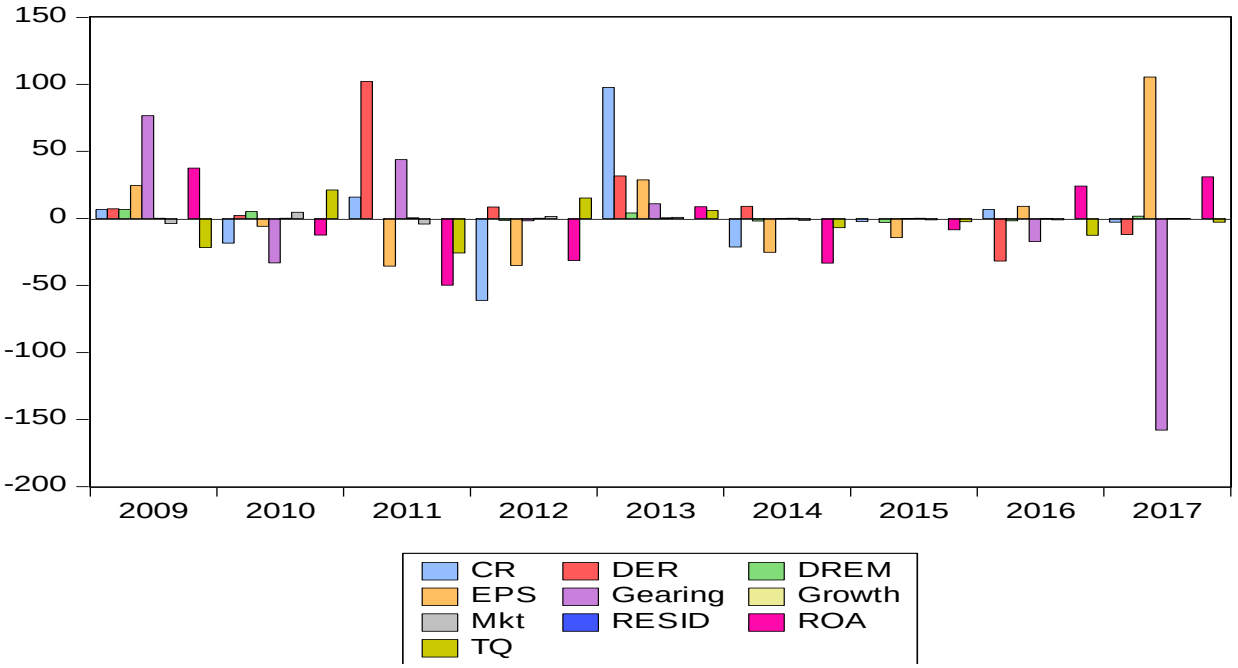


Figure 6.10: Explained the trend analysis in growth of BOC PLc between 2009 and 2017

Source: Own research, 2019

6.7.6 Service Sector

This sector is represented by Aviation, Briscoe and Learn Africa Plc. The performance indicators revealed majorly negative growths. All measurements of firm value like market capitalization and growth in sales keep decreasing in growth while EPS, ROA and TQ are growing at a very slow rate. The Current ratio increased sharply in 2012 up until 2014 and then began to fall. The fall in gearing ratio might be the cause of reduction in the growth of current ratio and changed in debt to equity ratio. This need to be monitored so as not to have an inverse effect on ROA and further worsen the growth of the firm. However, Briscoe Plc is not performing very well as all the growth indicators are growing at a reducing rate. Firm value indicators like TQ and market capitalization picked up in 2014 up until 2016 but started falling in 2017. This had a negative effect on shareholder returns which is EPS, sale's growth and firm's profitability which is ROA. Director's remunerations of Briscoe should be worked upon to have good remuneration structure to motivate the board of directors to foster good governance. Growth in Aviation's director's remuneration in 2015 and 2016 helped to have positive effect on EPS, TQ, market capitalization, sales growth and ROA. Briscoe Plc and all other firms in this sector with similar problem can work on their corporate governance for better performance in the same sector.



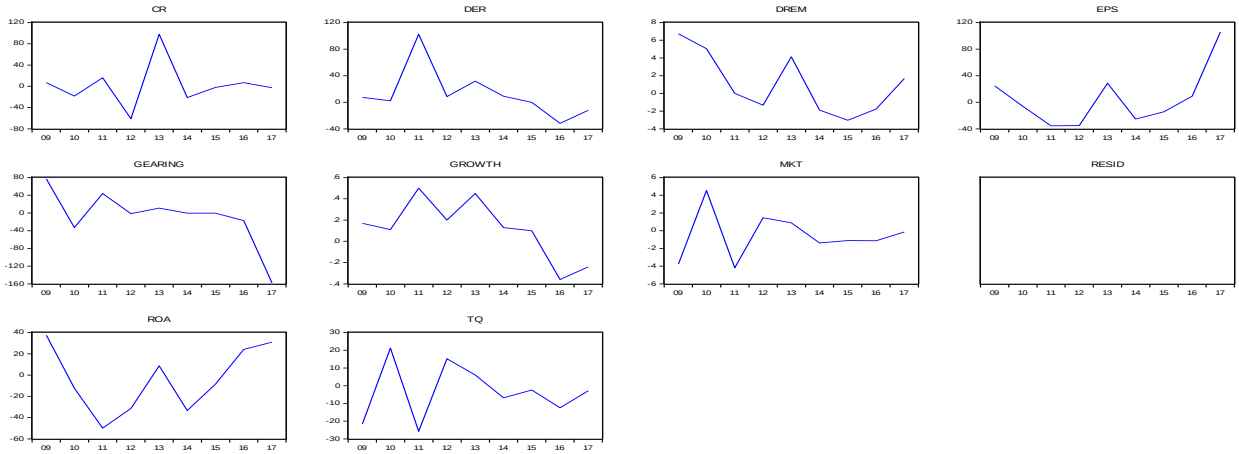


Figure 6.11: Explained the trend analysis in growth of Aviation PLc between 2009 and 2017

Source: Own research, 2019

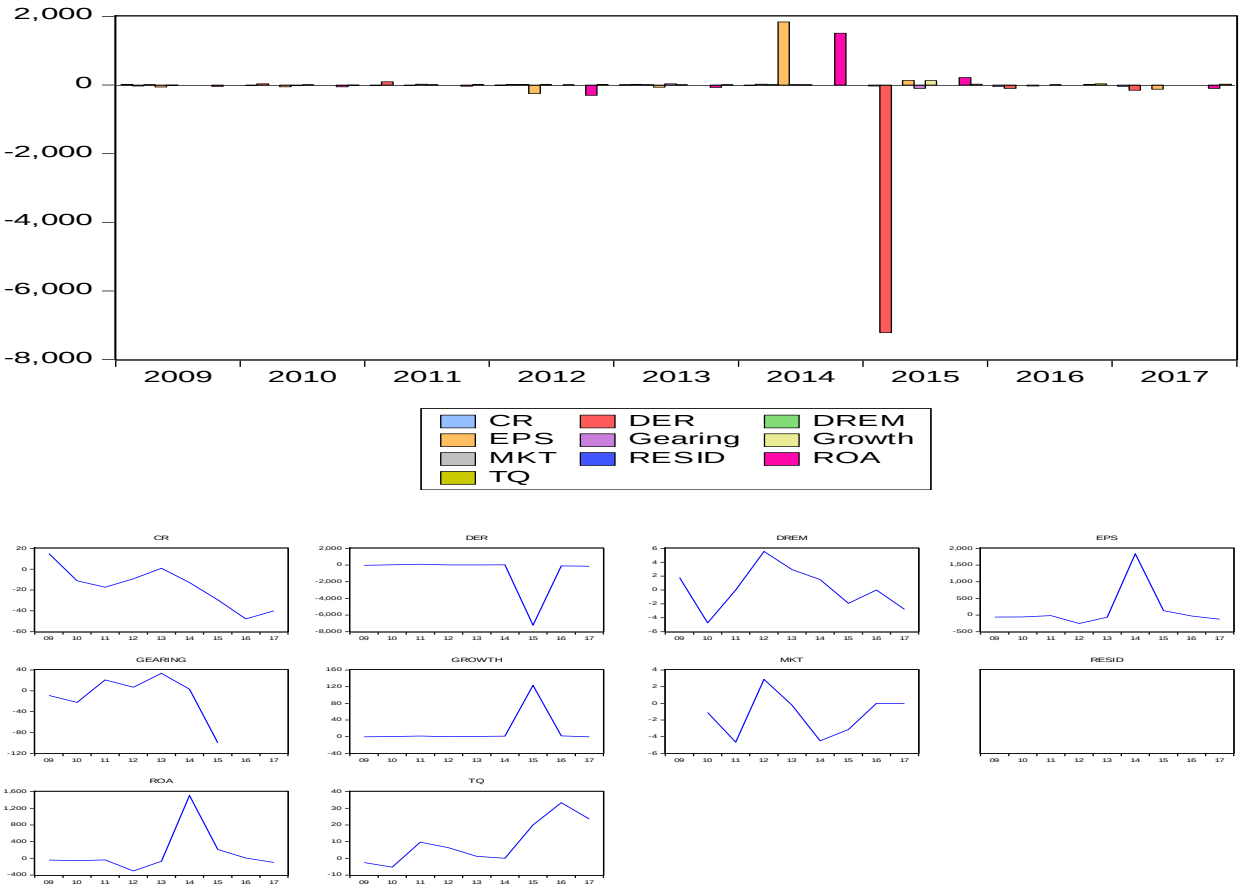


Figure 6.12: Explained the trend analysis in growth of Briscoe PLc between 2009 and 2017

Source: Own research, 2019

6.7.7 Consumer Goods sector

The growth of most of the firms in this sector are average in terms of performance. This is because most of the growths indicators are growing into a negative direction. Examples are as revealed from bar charts from Nestle Plc, 7up plc, Nigeria breweries Plc, NASCON and CADBURY plc. Vita-foam Plc seem to have fixed growth yearly as its flows remains along zero axis throughout the years under study. The performance of all firms in this sector are similar. Firm value and firm performance variables such as ROA is showing a continuous negative growth, TQ reveals negative growth but the graph moves towards positive direction which means shareholder's value is created and growing but at very slow rate. The stock price in relation to it market value of all the firms are growing except 7up Plc that reveals a decrease in the growth of its market capitalization. The fall in stock price of 7up may be as a result of it close substitute such as Coca-Cola. However, the

zigzag movements of the growth in the market capitalization of all the firms could be linked to stock market crash Nigeria experienced from 2009 to 2013 which was one of the aftermath effect of economic meltdown and the Enron case that shook the world market. A yearly reduction in ROA may be linked to reduction in debt to equity ratio and gearing ratio. The companies are therefore advised to increase their leverage which is expected to increase ROA, ROE in the long run. Although more leverage makes those companies more volatile to risk and increases the volatility of earnings especially when the interest rate of the debts are greater than the earnings of those years. The optimum capital structure of the firms at which WACC is at a minimum and at the point where highest market value is obtained would need to be determined to reduce the volatility risk. Liquidity ratio of all the firms here as represented by current ratios also need attention to help the firm's ability to meet their day to day running of the business. With these factors, together with good governance would greatly help the companies under review to enjoy growth in all aspects. Among all the firms being studied from this sector, Vita-foam plc seems to be the least growing company and the best stable company in terms of growth. This means the company did not experience negative growth as other companies do. However the board can work on their governance and that would bring yearly positive growth to their accounting ratios.

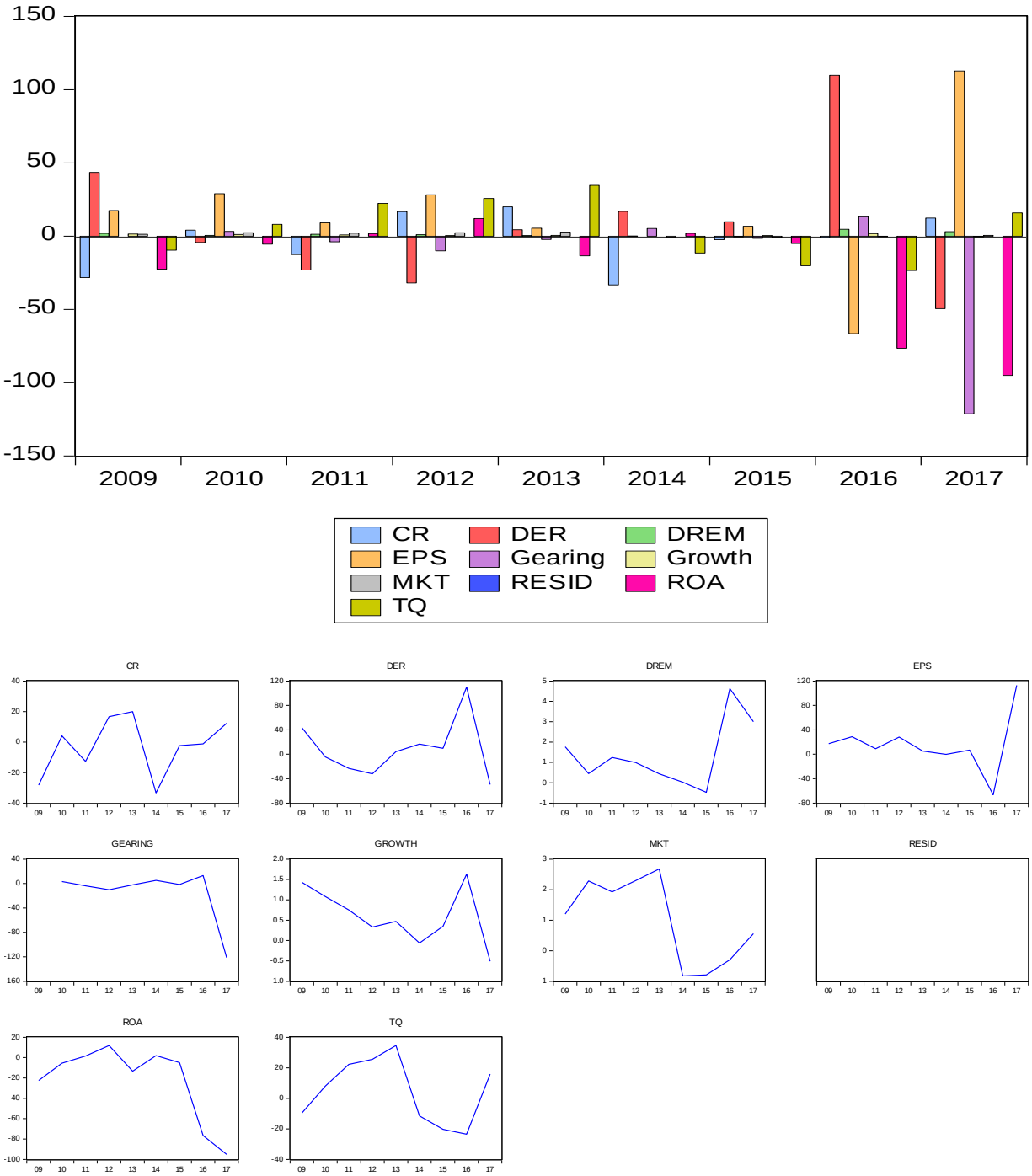


Figure 6.13: Explained the trend analysis in growth of Nestle PLc between 2009 and 2017

Source: Own research, 2019

Figure 6.14: Explained the trend analysis in growth of7Up Bottling Company between 2009 and 2017

Source: Own research, 2019

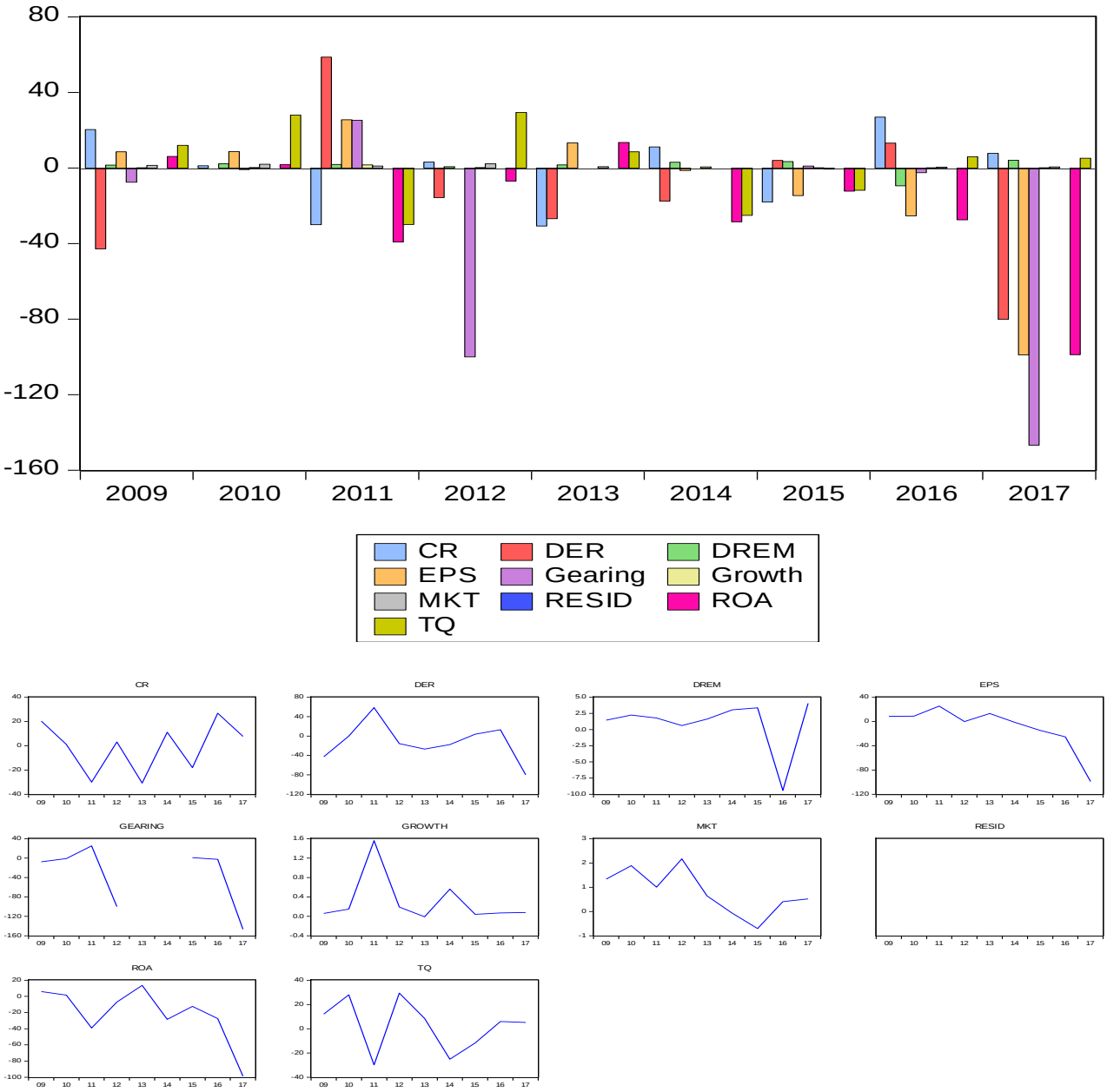


Figure 6.15: Explained the trend analysis in growth of Nigeria Breweries PLc 2009 and 2017

Source: Own research, 2019

Figure 6.16: Explained the trend analysis in growth of NASCON Plc 2009 and 2017

Source: Own research, 2019

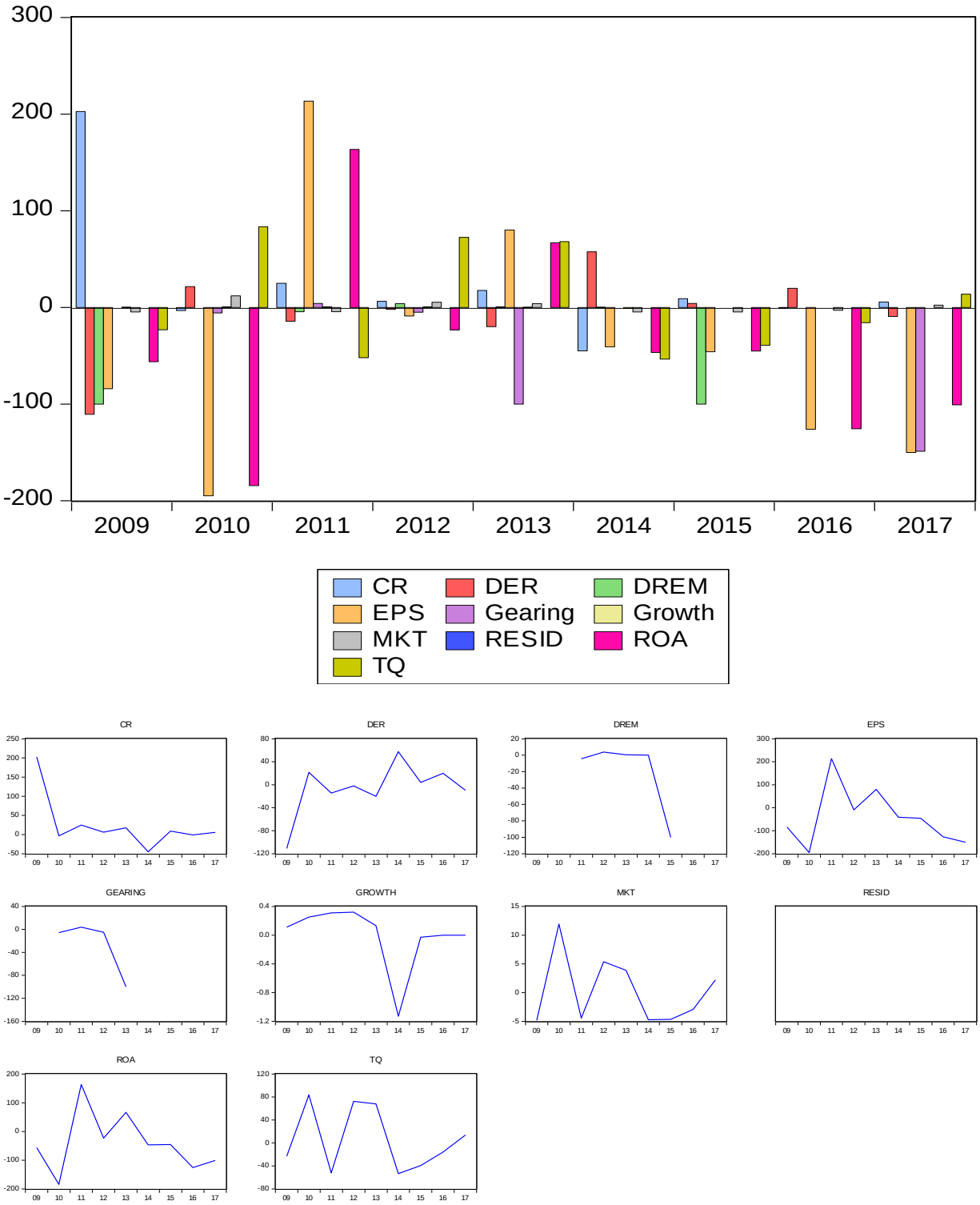


Figure 6.17: Explained the trend analysis in growth of CADBURY PLC between 2009 and 2017

Source: Own research, 2019

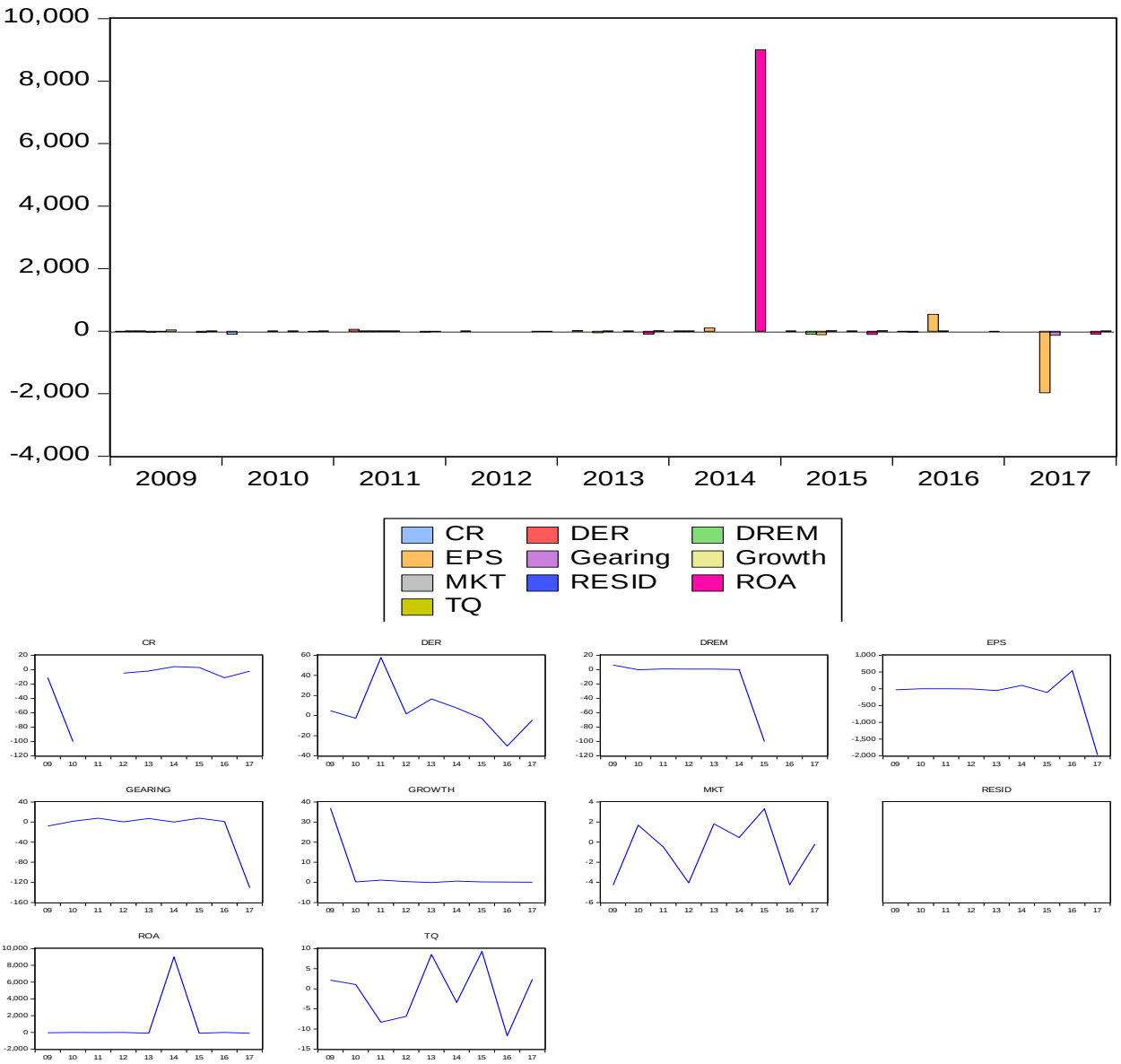


Figure 6.18: Explained the trend analysis in growth of Vita-foam Plc between 2009 and 2017

Source: Own research, 2019

6.7.8 Oil and Gas sector

This is also very important sector that took over from agricultural sector in 1980s. It is the fastest growing sector of Nigeria economy as at present and represent the main source of income to the nation. The firms that represent this sector are Total Plc and Forte Oil Plc. The variables for measuring firm value and firm performance such as TQ, ROA, Market capitalization and EPS reveal positive growth especially in 2016 and 2017 for Forte oil plc. However the chart clearly

revealed some negative growth among the variables especially starting from 2009 but greatly reduced in 2013 to 2017. However, the company in terms of performance of its growth lately is poor as compared to 2010 and 2011. This could be as a result of stock market shock that crash down the stock price of listed firms in Nigeria during this years under review. The growth in Total plc is steadier than that of Forte oil plc as reveled from the graph although the growth seems to be fixed in nature except in 2014 when the company experience abnormal profitability growth as revealed by ROA in the graph and the chart during the years under review.

Figure 6.19: Explained the trend analysis in growth of Forte Oil Plc between 2009 and 2017

Source: Own research, 2019

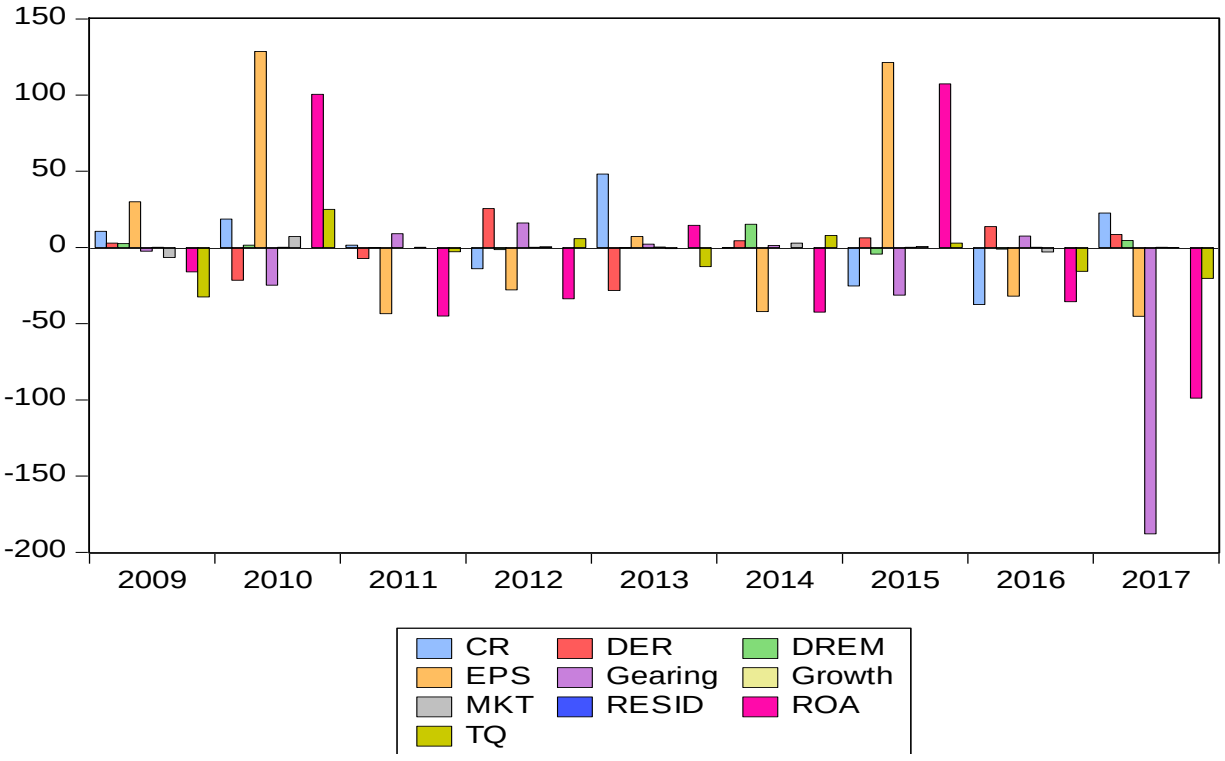
Figure 6.20: Explained the trend analysis in growth of Total Plc between 2009 and 2017

Source: Own research, 2019

6.7.9 Industrial Goods Sector

Most of the firms in this sector are performing well although most of the growths indicators are pointing into a negative direction. Examples are as shown from the bar charts and the graph of Berger Paint Plc, Ashaka cement Plc and Lafarge cement Plc. The performance Lafarge is better than that of Ashaka this could be the major reason behind the acquisition of Ashaka Plc. Firm value and firm performance variables such as ROA reveals yearly meandering movement and results in negative growth at the end of 2017, Berger paint plc's firm value as represented by TQ

also reveals zigzag growth and later reduces from 2014 to 2017 while other two companies shows an increment in firm value especially in 2016 and 2017. This could be the result of merger and acquisition which cause sharp growth in 2016 and 2017. The stock price in relation to its market value of all the firms reveals a decrease the in the growth of its market capitalization. However the zigzag movements of the growth in the market capitalization of all the firms could be linked to stock market crash Nigeria experienced from 2010 to 2013 which was the aftermath effect of economic meltdown and the Enron case that shook the world market. Yearly reduction in ROA may be linked to reduction in growth in turnover, debt to equity ratio and gearing ratio of the three companies. The companies are therefore advised to increase their debt ratio which is expected to increase ROA, ROE in the long run. Although more leverage is expected to bring high returns yet it exposes the companies to risk and increases the volatility of earnings which can lead to sudden failure of the firm in question. The firm's ability to meet their day to day running of the business and to pay their debt as and when due of the three companies is represented with current ratio. This ratio reveals reduction in their growth which is a caution sign for the companies. With these in addition with good governance these companies would continue to enjoy yearly positive growth in all aspects.



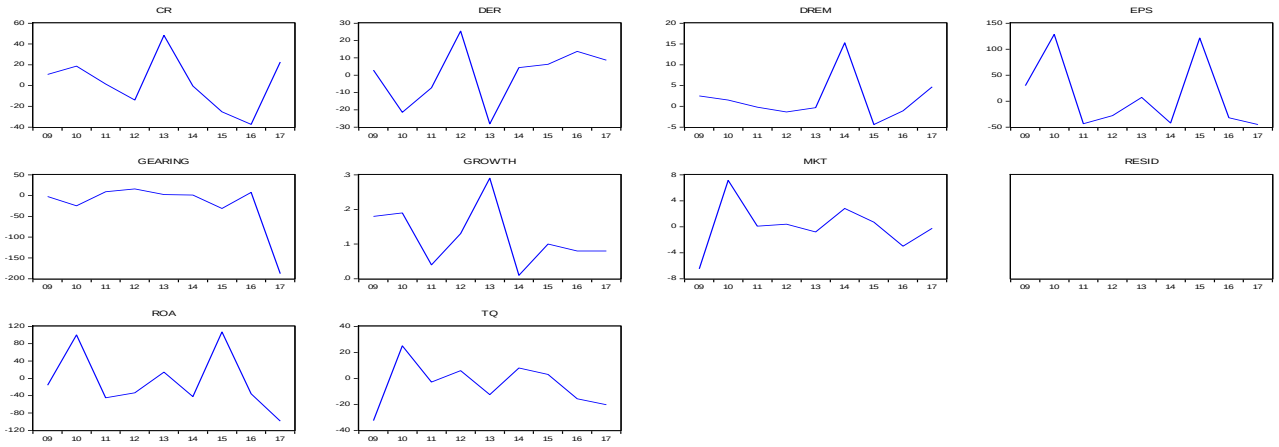
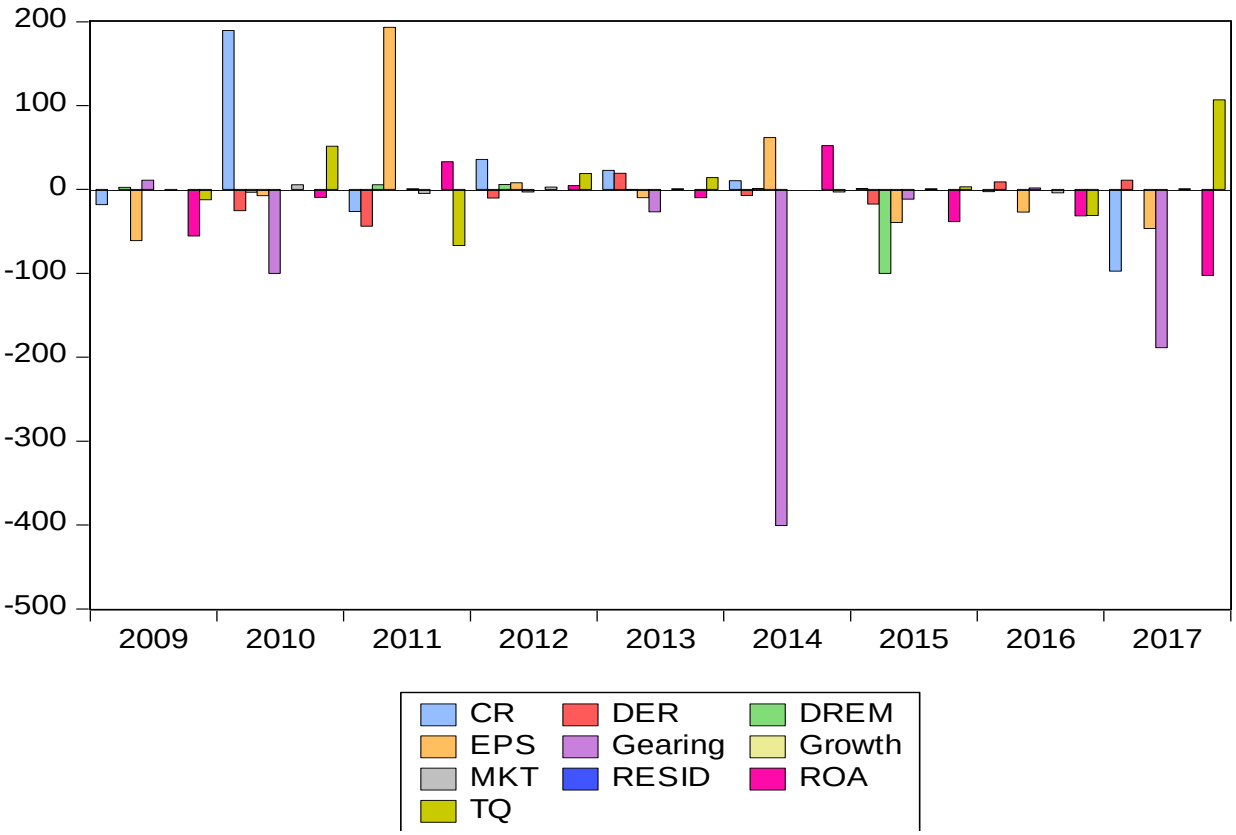


Figure 6.21: Explained the trend analysis in growth of Berger Paint Plc between 2009 and 2017

Source: Own research, 2019



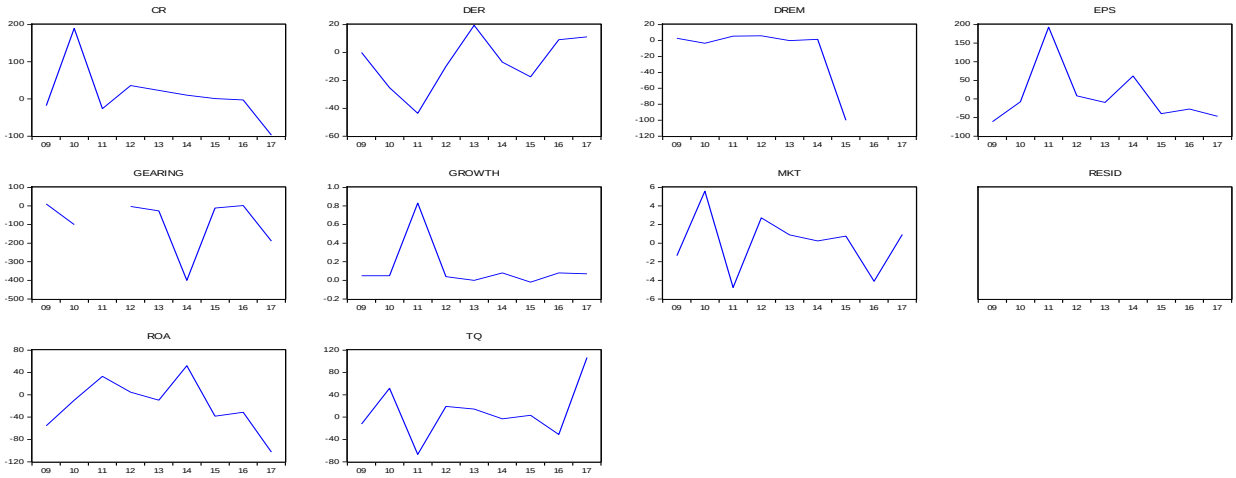
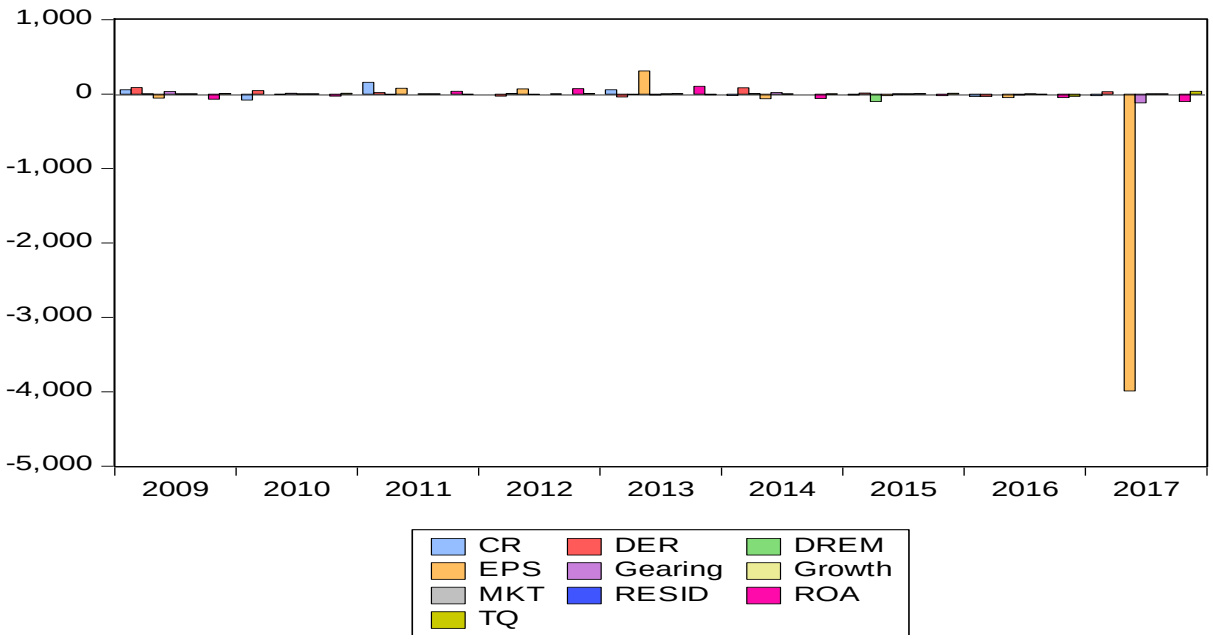


Figure 6.22: Explained the trend analysis in growth of Ashaka Plc between 2009 and 2017

Source: Own research, 2019



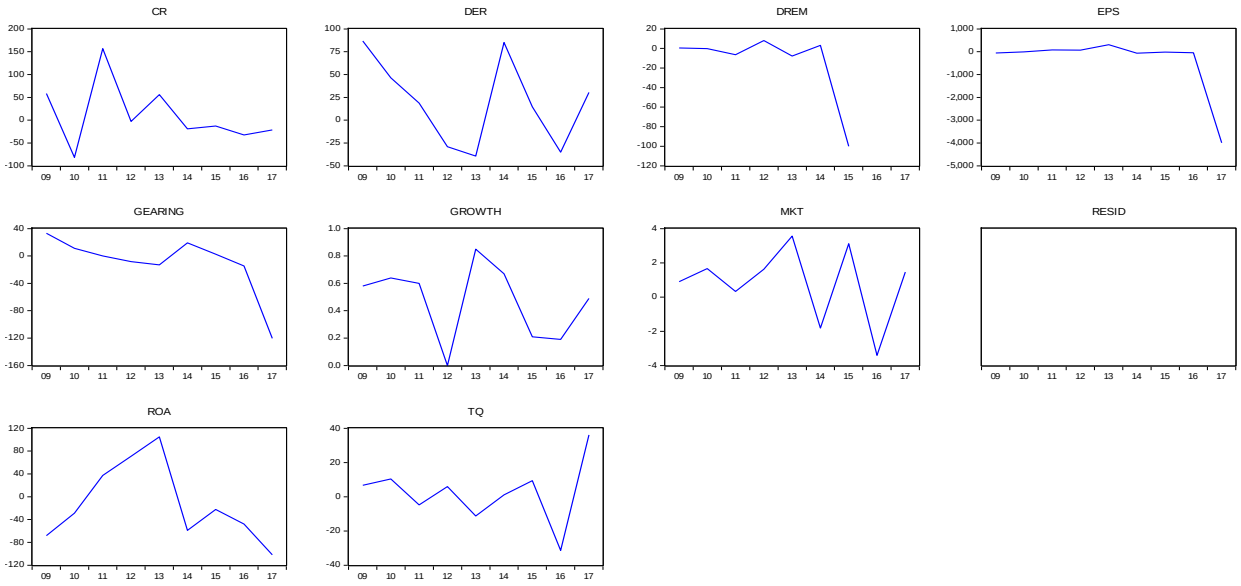


Figure 6.23: Explained the trend analysis in growth of LAFARGE PLc 2009 and 2017

Source: Own research, 2019

6.7.10 Construction/ Real Estate Sector

The two firms sampled from this sector are not doing badly as most of the indicators revealed positive growth as it is shown on the bar chart (figure 6.24 and 6.25). However, the line graph explicitly revealed the direction of the growth. The firm value of Julius Berger plc as defined and measured by TQ's growth is meandering along 0 and -1 axis while that of UAC plc is really showing a steady growth. This means that the growth revealed both positive and negative growth which could be as a result of unstable and zig-zag movements of growth in turnover, meandering nature of stock price as measured by market capitalization, growth and negative growth of ROA and EPS. However, the two companies revealed that value of the firms are increasing which means wealth of the shareholders are being maximized. The growth of current ratios of the two companies need attention because it moves along zero axis. The general performance of this sector is on the average.

Figure 6.24: Explained the trend analysis in growth of Julius Berger PLc over the last ten years 2009 and 2017

Source: Own research, 2019

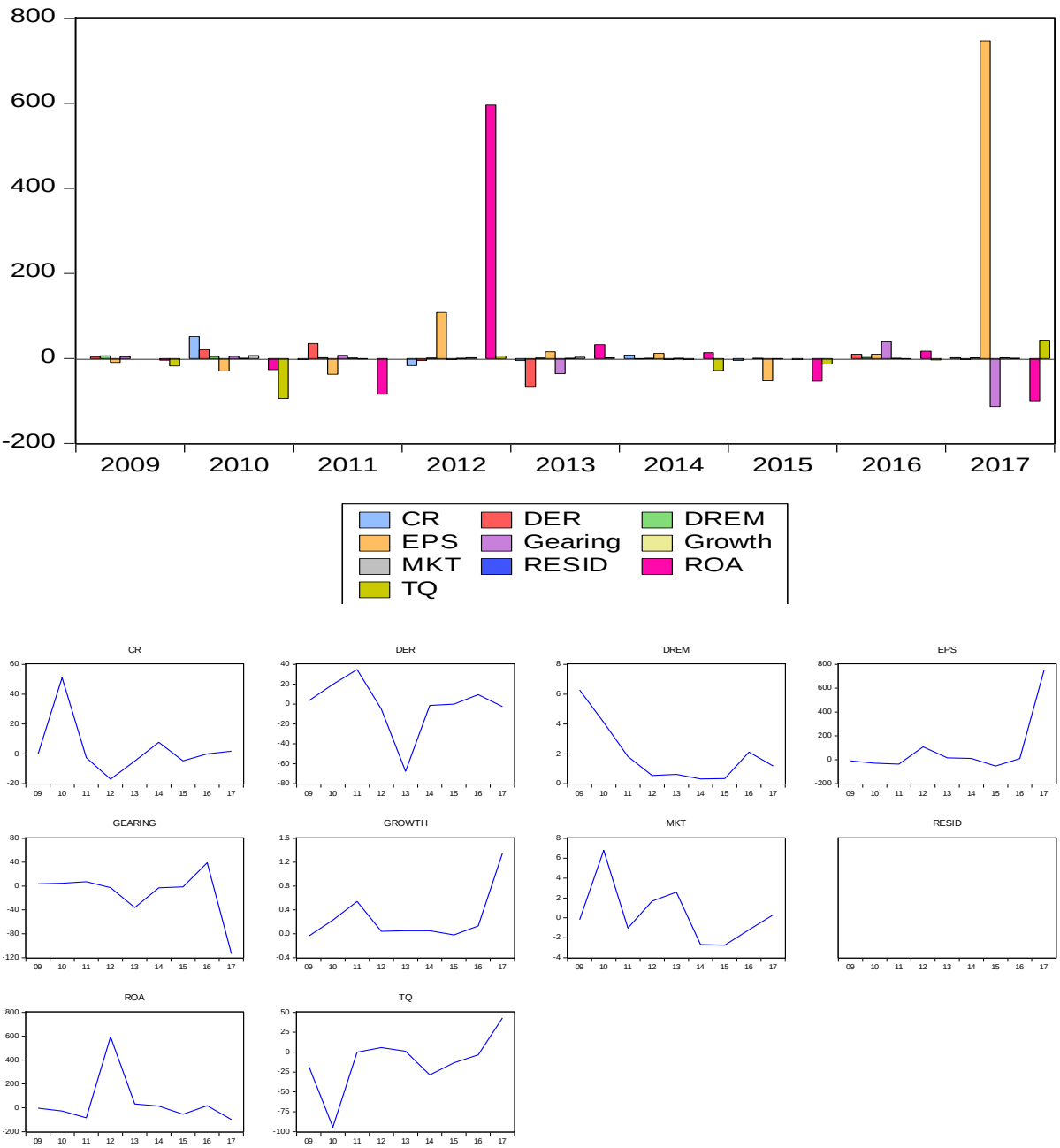


Figure 6.25: Explained the trend analysis in growth of UAC Plc between 2009 and 2017

Source: Own research, 2019

6.8 Test of Hypothesis

In Chapter One (1.4.2c) and Table 6.26 below, the hypothesis is tested from the result of the analysis. Based on the t statistic of the measure of corporate governance which are (market capitalization, board size, director remuneration and growth) -8.18, 1.9, 2.77, and 13.69 respectively and that of Accounting ratio of debt equity ratio with t test statistic of 16.16, the study

rejected the null hypothesis which says corporate governance and accounting ratio has no significance impact on firm value. However, the study accepted the alternative hypothesis that corporate governance, accounting ratio have significant impact on firm value. For f test statistic, the value is 4.24 which connote the significance of alternative hypothesis that corporate governance and accounting ratio have impact on firm value. The acceptance was also based on the significance of all the variables as depicted by the Table 6.27.

Table 6.27: Test of hypothesis result

Variables	t- statistic	F- statistic	Probability
Tobin's q	32.40		0.00*
Market capitalization	-8.18		0.00*
Board size	1.90		0.05***
Director's remuneration	2.78		0.00*
Growth	13.69		0.00*
Debt equity ratio	16.17		0.00*
		4.24	0.00*

Source: Own research, 2019

Note: * Denotes P-value at 1%, ** at 5% and *** at 10% respectively.

6.9 Discussion of Results

The study has revealed that a relationship does exist among corporate governance variables employed, accounting ratios variables and firm value of the listed selected firms. The variables which are the measures for corporate governance are board-size, market capitalization, director's remunerations, and growth of the firm, accounting ratios are ROA, debt equity ratio and EPS while firm value was represented by Tobin's q respectively. The study therefore discusses the results according to the stated objective of the study. The first objective was first split into two by considering corporate governance variables and firm value and accounting ratios and firm value being considered together as one objective. The objective was to discover which of the variables has a greater impact. Before now there had been arguments in the literature whether accounting ratios have a positive impact on firm value. The results proved that accounting ratios employed have a positive and significant impact on firm value see table 6.10 under system-GMM. Before this work was conducted, the author was of the opinion that Accounting ratios were only meant

for analysis and interpretation of financial statement and for detection of company's financial health. However, it was revealed that accounting ratios have both positive and negative impact on firm value. Although, the result revealed very little impact on firm value. This could be related to the crash of the Nigeria capital market as a result of poor corporate governance and all forms of creative accounting that occurred prior to this period under study. This caused great variation in the stock market value of the companies and it was revealed through the accounting ratios computed from financial statements prior to 2009 as greatly higher than the accounting ratios computed after the period being studied. That was one of the reasons behind the chosen periods for this study. The interpretation of this is that accounting ratios help and direct managers of an organization to improve on their performance especially where management discovers lapses, corrective measure would be taken to avert such reoccurrence in the future. This would thereby lead to improved performance in the short-run and improved firm value in the long-run. However, objective one generally revealed that corporate governance improves firm value. This supports the existing literature that showed that corporate governance is an engine that carries any organization and it is directly attached to failure of an organization. This could be one of the major reasons apart from those specified before in this study as to why Nigeria experienced more failure during the period under study. The advent of 2016 national corporate governance code has brought about an improvement in the performance of those listed firms. The unification of the code of corporate governance has greatly contributed to an improvement in the performance of the listed firms as revealed in the result of the impact of corporate governance, accounting ratios and firm value in the Nigeria stock exchange market.

Objective Two looked into the dynamic interaction among all the variables employed in the study. Long-run relationship were discovered among corporate governance, accounting ratios and firm value of the selected listed firms in Nigeria. While some variables revealed a positive relationship, some revealed an inverse relationship and also while some are significant others are insignificant.

Sensitivity analysis was also carried out where different variables were employed as a firm value. This was to distinguish the response of the independent variables into different measures of firm value. For instance, market capitalization and ROA revealed an improvement on the original result when Tobin's q was employed as a dependent variable. In general, these results imply that variables are highly sensitive to different measures of firm value as there are improvements when

other measures of firm value were used. This validates the arguments why there are mixed results in the literature and why the same variable provides different results under different measures of firm value as a measure of dependent variables. Other reasons why there are mixed results could be attached to firms governance, industry in which the firm is situated, government policies, environment of the company and competitors. Disparity in all the factors mentioned above are very important factors to be considered if firms want to continue to enjoy value enhancement and value sustainability and going concern in the long run.

For this objective to be achieved, long run relationships were established for all the variables and firm value through the use of PVECM. From the result only Tobin's q and market capitalization revealed long-run relationship with other variables as it was shown in table 6.17 while market capitalization revealed positive relationship with all other variable in the long-run when considered as the dependent variable but has an inverse relationship in the long-run when Tobin's q is considered as the dependent variable. This supports prior studies such as Loltianya (2012:1) and Hamdan (2016:121) who both revealed different result while the later revealed a positive and significant relationship the former revealed a weak relationship between market capitalization and firm value in the long-run. Other variables revealed mixed results.

Various impulse responses were also carried out which showed that Response of Tobin-q to other variables showed that shock to DER has a negative impact on firm value while other variables revealed a positive impact on firm value with the exception of board size that remain indifferent to firm value. Market response to shocks to firm value was also discovered to be positive and constant throughout the periods while other variables are slightly positive except the growth that revealed a negative impact and board size and DER that are indifference.

The shock of directors' remuneration response to firm value is positive but constant throughout the period under review while market capitalization and growth have a slightly negative impact on directors' remuneration. A shock to board size is slightly positive at the beginning but later indifferent to a shock to director' remuneration, ROA and EPS have a slightly positive impact on director's remuneration while debt equity ratio is indifference to shock from director's remuneration throughout the period under investigation. It can be revealed that a shock of growth of the firms to Tobin's q is positive but constant all through the period under investigation while market capitalization negatively fluctuated but was later constant throughout the period under

review. Meanwhile board size, director's remuneration and EPS have a slightly negative impact on growth of the companies under investigation. However, ROA and debtor equity ratio have an indifference to shock from growth.

The response of return on asset to a shock to other variables was revealed. A shock to both Tobin's q and directors' remuneration have slightly positive impact on ROA. Meanwhile, both board size and debtor to equity ratio showed an indifference response. DER ratio showed a sign of being positive which is similar to market capitalization which showed a positive but constant response to ROA throughout the period under investigation. Growth of the firms and EPS responded negatively to ROA during the period under review while the response of EPS is slightly negative to ROA during the same period.

Shock from both Tobin's q and growth showed a negative response to debt equity ratio while shock from both ROA and EPS showed a slightly positive response to debt equity ratio. However, the response from market capitalization is also positive but fluctuates to debt equity ratio over the period while the shock from board size and director' remuneration is indifference to debt equity ratio but director's remuneration has a positive signs. The response of earning per share to shocks to other variables revealed that market response to shocks to firm value and board size is indifference all through the periods under investigation. Also, shocks to growth and debtor to equity ratio have slightly positive impact on earing per share. A shock to director remuneration of the firm has negative impact on EPS while the responses of market capitalization and return on asset have a positive impact on earnings per share.

The variance decomposition revealed that the major determinant of firm value in the short run is to determine the growth rate of the firm which could be through profitability followed by ROA from the first table. The interpretation of this is that company would want to know if the growth is commensurate with the return on asset or does the growth over the years improve the value of the firm and later increase shareholders' wealth. This is revealed from EPS's result that increases in the middle and in the long run. This implies that the value had been created and it is been sustained over the period under study. However, it should be noted that it increases at a reducing rate which could be attributed to other factors and it is a bad signal to the firms. In the first year, all variables failed to respond to shock to firm value. It was discovered that the value was created and sustained through EPS and growth of the firm. It implies that the companies are growing at a slow rate. This

is established from the result from EPS, growth and ROA. However, these variables revealed a very low growth rate in the long run and to avert this, the management of the organization need to introduce new innovation for better improvement. Another very important point here is that as companies' growth is an indirect proportion to increasing firm value. This is established from the result from growth and EPS. In the second table, it can be concluded that only firm value respond sharply from first year (short run) all through the period under investigation. Other variables failed to respond in the short run and at slow rate in the middle and in the long run. Only market capitalization and firm value respond to board size in the first year while other variables failed. However, only EPS and ROA response to shock of the board size in the short run and in the long run even though the response is at a reducing rate.

The fourth table also revealed that director's remuneration is an important determinant of firm value. This is shown from the table that only Tobin's q response sharply to the shock of director's remuneration followed by market capitalization and board. From the fifth table, it revealed that firm value, market capitalization. EPS and director's remuneration that are important determinant of growth of the firm. This implies that if a company experiences growth, and the signal is obtained from variables such as improved firm value, stock price and share price appreciation, increase in market value and the quality of directors that are managing the firms. The sixth table revealed a shock from ROA would sharply affect the growth and market value of the firm. It can better be interpreted that ROA, growth of a firm and market value are directly related. This table also revealed a low growth in firm value in the long run.

In the seventh table, growth response sharply to debt-equity ratio followed by firm value and market value of the firm. This implies that capital structure of a firm is directly related to its growth, market value and the firm value. The result from EPS and DER revealed that DER negatively affect shareholder's returns (EPS) in the short run and becomes indifference in the long run. The last table revealed that ROA and director's remunerations response sharply to the shock from EPS. It later affects market value of the organization followed by the growth of the firms. This implies that if there is a drop in EPS, it would later affect market value of the organization which would be followed by the growth of the company. This implies that if there is a drop in EPS, shareholders may withdraw their investment thereby lead to drop in the market value and latter failure of the organization in the long run.

In conclusion, it was discovered that all the variables are important in determining value of the firm. This is because no negative response was received from any of the variables employed in the study. It was also observed that the response of the majority of the variables keep falling as the years keep increasing. This is a bad signal, management should improve on their governance and be sensitive to other variables that were mentioned earlier in this study. This is very important because there is need to avert any forms of risk that may bring about low market value, low firm value, low shareholder's return and corporate failure.

Lastly the study employed trend analysis to examine the performance of the firms as well as each sector. Government needs to help these firms by creating an enable environment that encourage businesses to strive. For example power supply in Nigeria is one the main issue that need urgent attention. Having consolidated all the sectoral codes of governance in Nigeria by security and exchange commission, power and security need serious attention too. If government can put all these in place in addition with good governance, performance of all listed firms in the country would greatly improve.

CHAPTER 7:SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

Corporate governance as discussed in this study portends serious issues requiring urgent attention due to rate of corporate scandals in the world, and its effects on nations around the world including the puzzle of economic meltdown and crash of capital market in Nigeria in 2010. As a way of mitigating the effects of these scandals, the current study, therefore, looked at the topic "developing a model that incorporate the effect of corporate governance on accounting ratios and firm value of firms listed on the Nigeria stock exchange". For the study to achieve its objective, data was retrieved from published financial statements of the listed firms of the Nigeria stock exchange from 2008 to 2017 thereafter, computed with the aid of their respective formulas to arrive at the processed data employed for the study.

The study was technically and logically structured into seven chapters that indicate the best way to achieve its stated objectives. Chapter one covers the introductory aspect of the study, problem statement, objectives, and significance of the study. The introduction emphasized on the importance of this study by linking it to the growth and development of the economy of every nation. Corporate governance is seen as an important aspect of corporate sector of every economy that if not well handle, the economy of a nation world be in jeopardy. In addition, accounting ratios are seen as tools that help managers to improve on their performance. It is therefore imperative for every company's managers to consider how good corporate governance can be in place. It was proven in the literature reviewed in the earlier chapters that absence of good corporate governance is one of major issues that causes sudden failure of well performing companies around the world. However, failure of multinational companies around the world have resulted in increased in attention of corporate governance. The failure of multinational companies also a source of awareness for company's management to be more careful, transparent and value driven in their operations so as to sustain and improve company's value. Accounting ratios on the other hand, are seen as a medium through which performance of company managers are measured and determined. Both theoretical and empirical objectives were structured in such a way to help the study to proffer solution to the stated problems.

Second chapter covered both theoretical review and the empirical review of the study. The theoretical review revealed that most theories on corporate governance are interrelated and that the mother of them all is agency theory because all arguments from other theories revolve round agency conflict between shareholders and managers or other stakeholders and managers. Therefore, for the purpose of this study, all theories are grouped under corporate governance, accounting ratios, firm value while some under disclosure and compliance. Under corporate governance, we have agency theory, stakeholder's theory, resource dependency theory, Stewardship theory, ethic theory, and political theory while under accounting ratios are pecking order theory, signaling theory, trade off theory, positive accounting theory and agency cost theory. The compliance and disclosure theories are legitimacy theory and litigation cost theory while theory of firm value are summarized under shareholder's theory and stakeholder's theory.

Other aspect of this chapter included the empirical review which was grouped into prior studies from developed countries, prior studies from developing countries and prior studies from Nigeria. Nigeria was singled out from developing because the study employed Nigerian companies. Findings from the review revealed no prior empirical work that combine corporate governance, accounting ratios and firm value together in Nigeria as at when online searching was carried out. Even in the world literature, they are very few related previous studies and those few studies did not use panel data that was employed in this study. However, there are a lot of studies on corporate governance and firm value while studies on accounting ratios and firm value are very few.

Chapter three provided conceptual review where various concepts were defined. The definition of corporate governance was viewed from two different perspectives. The narrow view and the wide view. However, whichever way one looks at it, it must tend towards maximization of company's value. The definition that takes into account wide range of stakeholders is called wide range definition while the one that takes care of the manager and shareholders is said to be a narrow view definition. Other pertinent issues in this chapter is the model that was formulated to depicts how good corporate governance improves firm value under three different scenarios with the help of accounting ratios as a tool and company's capitals. Good corporate governance leads to better and improve accounting ratios especially through the use of integrated report and can among other factors result in higher firm value. Then it was also postulated that management must employ all available company's capitals within the firm to create value by converting them into products and

services. Another important issue in this chapter was the integrated report that was suggested that should be encouraged in Nigeria and other parts of the world through the use of business model because it would not only create value but also sustain value created. This is because sudden distress of some promising firms in Nigeria was as a result of not been able to sustain their value over time as it was revealed by the trend analysis report. Lastly, considering the impact that corporate governance and accounting ratios have on firm value, corporate governance leads to higher firm value and better accounting ratios. Accounting ratios on the other hand, is an indicator that helps managers to take rightful decisions that improve firm value. Therefore, the impact of corporate governance, accounting ratios on firm value is felt by increasing firm value.

Fourth chapter dealt with the theoretical objectives earlier stated in chapter one. It was concluded that the weak disclosure and compliance rate of companies to the 2003 code of governance was attached to multiplicity problems of the codes and the conflicting nature of their provisions on the same issue and the advent of the 2016 national code of corporate governance is expected to proffer solution to these problems. However, there is need for further study to be able to determine how effective this code would be in the nearest future. However, one year after the approval of this code is not enough to determine the effectiveness of the code. The linkage between voluntary compliance and NCGC therefore is that voluntary compliance reduces information asymmetry and close the gap between the company in question and the stakeholders. A quality annual report is the medium through which this gap can be closed. Therefore, improvement in voluntary disclosure over and above compliance to mandatory disclosure enhances transparency, accountability of the financial statement and sustainability of the company's value. Increase in voluntary disclosure in relation to corporate governance compliance on the financial report protects, strengthens shareholders, sustains firm value and increases investor's confidence.

The fifth chapter provided methodology and the model specification suitable to achieve the stated objectives. The methodology employed are descriptive statistics analysis, panel regression and system-GMM and dynamic interaction among all the variables, panel unit root test, graphs charts representation, correlation analysis, co-integration test diagnostic test, PVECM, and trend analysis. Other robustness test were also carried out such as sensitivity analysis, cross sectional dependency test, and determination of fixed or random effect test using Hausman's test. Chapter six covers data analysis and interpretation where all the methods mentioned in chapter five were employed. The results and finding are thoroughly dealt with under the summary of findings and

results. Chapter seven therefore is divided into eight sections. Section 7.1 introduces the chapter while section 7.2 summarizes the findings. While section 7.3 reveals the major achievement of the study objectives, section 7.4 presents the contribution of the study to the existing body of knowledge. In addition, section 7.5 presents policy implications of the study, and section 7.6 enumerates the limitation of the study, section 7.7 concludes the study and lastly section 7.8 provides suggestions for future studies.

7.2 Summary

This study investigated the impact of corporate governance, accounting ratios on firm value. This was achieved by developing a model that indicate the effect of corporate governance, on accounting ratios and firm value of firms in Nigeria. The brain behind this title, objectives and the method adopted were based on the distressing rate of corporate failure, migration of some well performing firms, reduction and failure of companies to sustain their values and performance over the years. The capital market crash in 2009/2010 that greatly led to a loss of value of stock price of all companies in Nigeria, loss of livelihoods of so many investors through sock of stock price devaluation especially those whose living was solely and directly attached to stock market trading. Another major reason was the sectional nature of the code of corporate governance prior to 2017 which was later harmonized and consolidated to become national code of corporate governance in 2016.

Lastly, sudden failure of some promising companies to sustain their value created in the long run was critically examined during the course of the study. However, the study technically structured both theoretical and empirical objectives towards providing answers to the above stated problems. The objectives were structured in such a way to achieve the overall objective. To achieve this overall objective, the study was further broken down to investigate the company's level of compliance rate with the code, the impact of corporate governance and accounting ratios on firm value as well as the study of the dynamic interaction of corporate governance, accounting ratios and firm value. Specifically the study:

(1) Appraised to what extent are the selected firm's complied with the 2016 Nigeria National Corporate Governance Compliance (NCGC)

(2) Analyzed the linkage between voluntary compliance with NCGC by employing a board composite index while the empirical objective are:

(1) Determined the impact of corporate governance, accounting ratios on the firm value of selected firms in Nigeria.

(2) Examined the dynamic interaction among corporate governance, accounting ratios and firm value of the selected firms.

(3) Studied the trend analysis of the sampled firms in order to determine the performance of the sectors.

To achieve this, however, the study structured the study into chapters: The first chapter started with introduction by uncovering the importance of the topic and expatiate on issues leading to this study. Subsequently, this chapter looked into the background of the study, followed by problem statement, the study objectives, ethical consideration, as well as hypotheses of the study. This chapter also provided the significance of having good corporate governance, accounting ratios, firm value and its sustainability as well as its effect to the economy of Nigeria and global economy at large.

Furthermore, the second chapter extensively reviewed related literature as well as various theories in relation to corporate governance, accounting ratios and firm value. The study was able to discover gap through the review which revealed that this topic still need to be researched in broad context. It was also discovered that there is no study of such in the Nigeria and Africa context. Lastly the empirical review helped to discover that accounting ratios are not only use as a yardstick to detect errors, measure firm value or firm performance but they can also be used to create firm value. This section was concluded that the quality of a company's corporate governance in place determine the quality of accounting ratios that can be derived from that same company. The findings also revealed that majority of the studies on corporate governance support multiplicity of theories for studies on corporate governance, accounting ratios and firm value. The chapter also revealed how an improved corporate governance is an indicator of efficient performance of company's directors and other management teams and can among other things improves accounting ratios which would latter result to value creation and value sustainability. The study was also supported with analytical models that revealed how value of a firm can be created and

sustained. Chapter three carried out conceptual review of the study. This chapter classified and gave simple definition to various concepts employed in this study. The definitions were classified into narrow and wide views for corporate governance. During the review, it was discovered that sectionalized codes were unified and changed to 2016 national code of corporate governance.

Chapter four addressed theoretical objectives of the study. It was found out that multiplicity of codes and conflicting ideas of different sectional codes is a major impediment to low compliance rate of listed firms in Nigeria. During the course of this study, SEC in conjunction with government came out with a unified national code of corporate governance that could rectify the aforementioned problems. The workability and the level of compliance of firms to this news code can later be determined over years and can be suggested for further studies. Chapter five provided the methodical framework upon which this work is built and the methodology platform that support the objective stated. The study therefore employed the PVECM model, system-GMM and other econometric models that are germane to this study. The chapter logically set out steps to follow in order to arrive at logical conclusion through the use of E-views. Different types of tests were also specified to support the analysis. The chapter also discussed the data source, sampling methods, sample size and their justifications.

Chapter six of this study outlined the data analysis, interpretation and their findings of the empirical objectives. The data retrieved from annual reports of various companies were subjected to various test in order to identify their characteristics and to establish any possible deficiencies in the series. Objective one was analyzed by OLS and system- GMM. This was done through panel unit root test, panel co-integration test and diagnostic test. Other methods such as PVECM were employed to support the approach adopted. This were also justified with various empirical studies. Some of the results and findings from the analysis supports the existing studies from other countries with slight changes. Furthermore, objective two revealed a positive dynamic interaction among corporate governance variables, accounting ratio variables and firm value. The study employed impulse responses, variance decomposition to achieve this objective and the result revealed a strong relationship among corporate governance variables and firm value. The result from accounting ratios and firm value majorly revealed a positive relationship. The overall interaction of all the variables are significant which interpreted that all variables are important for firm value maximization, creation and value sustainability both in the short and in the long run. Lastly on this

chapter, the study further carried out trend analysis of the sampled firms. The results were presented with graph and charts and based the interpretation on firm and sector level.

Chapter seven which is the last chapter provided summary, conclusion, recommendations and policy implication to the study. This was succinctly presented logically and in an orderly manner.

7.3 Achievement of the objectives and their major findings

Here, the study objectives are referred to below, how each objective was achieved, their major findings as well as their conclusion. These are dealt with in chronological order as stated in chapter one. However, the summary of the findings are taken from the results of the analysis in chapter six of this study.

7.3.1 Primary objective

The primary objective which was to develop a model that indicate the effect of corporate governance initiatives on accounting ratios and company's value sustainability was achieved through the construction and achievement of both theoretical and empirical objectives. The two sets of objectives and linear models were logically constructed in order to achieve this main objective. The achievement of both theoretical and empirical objectives implies that the main objective had been achieved. However, the achievement was also demonstrated in a comprehensive model that was presented in the form of figures in chapter 3. The model explained how corporate governance, accounting ratios enhance firm value, create value and sustain value of companies. It was therefore concluded that if good corporate governance is in place, it leads to higher firm value and better accounting ratios has it was revealed in the analysis result.

7.3.2 Theoretical Objectives

7.3.2.1 **Appraise to what extent the selected firms comply with the 2016 Nigeria national Corporate Governance Compliance (NCGC).**

In-depth review of related literatures was carried out for proper understanding of the various concepts relating to all the theoretical objectives under this section. Related literatures was mainly used to achieve the two objectives under this section. The theoretical objective one which is the extent to which the selected firms complied with the 2016 Nigeria National corporate governance compliance was achieved in chapter four, section 4.3 of this work. It was found that the level of

compliance of the sampled firms were poor when compared with 2003 code of best practices. This was due to multiplicity and conflicting of result of some issues in the different codes which made compliance difficult. Part of the findings was that during the course of the study, 2016 national code of corporate governance was approved which its main objective was to correct the shortcomings of the 2003 code of practice as well as other sectional codes. The study, therefore, concluded that the level of compliance to this 2016 national code may be difficult to determine by this study because the code is still new. However, the study based its decision on few annual reports that were available online as at the end of 2018. Director's report and other note to the account were reviewed and based on this, there was an improvement when compared with 2003 code of best practice. The conclusion therefore is that the code workability still need to be given time before conclusion can be drawn on the basis of its assessment. The study therefore reviewed financial statements with effect from 2017 to 2018 financial year based on new issues that were addressed in the new code and the instruction of SEC that all companies must comply with effect from October 2016. Only sampled listed companies that have their 2018 annual reports online were considered to determine their rate of compliance and disclosure to the 2016 national code according to the dictate of the code. Items that were itemized in the code are the variables that were considered as the benchmark to determine the level of compliance to the new code.

Table 7.1: Determination of level of compliance and disclosure to 2016 national code of governance

Compliance/Disclosure variables	**Nestle Plc**	**Berger Paint PLC**	**Cadbury Nig. PLC**	**Forte Oil PLC**	**Julius Berger Plc**	**GSK Nig. Plc**	**Okomu Plc**	**uac Plc**
Performance evaluation	yes	yes	yes	yes	yes	yes	yes	yes
Going concern	yes	yes	yes	Yes	yes	yes	yes	yes
Risk management	yes	yes	yes	yes	yes	yes	yes	yes
Internal audit function	yes	no	yes	no	yes	yes	yes	yes
Whistle blowing	no	yes	no	no	no	no	yes	yes
Board & shder interact	no	no	no	no	yes	yes	yes	no
AGM and Board meetg.	yes	yes	yes	no	no	no	yes	yes
Transpare and Disclos & corp. gov.	yes	yes	yes	no	yes	yes	yes	yes

Enforc, sanctn, transit arrange & commence	yes	yes	no	yes	yes	yes	yes	no
Protection of shde right	no	no	yes	no	yes	no	yes	yes
Institutional investors	no	no	no	no	no	no	no	no
Insider Trading	yes	yes	no	no	yes	yes	yes	yes
Related Party Transactn	yes	yes	yes	yes	yes	yes	yes	no
Conflict of Interest	no	no	no	no	no	no	yes	yes
CSR	yes	yes	yes	yes	yes	yes	yes	yes
Other corp. gov. mech.	yes	yes	yes	yes	yes	yes	yes	yes
Corp. gov. evaluation	yes	no	no	no	no	no	yes	yes

Source: Own research 2019

Note: YES- denote compliance and NO – denotes non compliance

The variables in the table above represent the new issues that were not enforced by 2003 code but now mandated by the new code. The report of only one financial year after the approval of the 2016 national code are shown above. The compliance report for the first year is not bad. The overall percentage of the compliance and disclosure is above 75% while the company that took the lead is Okomu Plc with almost 100% compliance followed by UACN Plc and Julius Berger Plc. On the average, the gap between compliance and disclosure rate of company law and corporate governance code is wide. In conclusion, better compliance to IFRS, IAS and other company laws compared to corporate governance code which the study believe that over time this weakness would be corrected with this new national code. However, there should be better awareness of companies to change their belief that corporate governance code is not a mandatory obligation that must be complied with. SEC should be more aggressive in their enforcement, ready to sanction any erring company, mandate all companies to publish their transition date to the new code and their commencement date.

7.3.2.2 **Analyze the linkage between voluntary compliance with the NCGC by employing a broad composite corporate governance index**

The theoretical objective two which is the linkage between voluntary compliance/disclosure and the Nigerian corporate governance disclosure/compliance (NCGC) was also achieved in chapter four section 4.4 of this study. The linkage between voluntary disclosure/compliance is considered

to be voluntary information that are material to the company which are as important as mandatory information. This information are used to close the gap between the company and their stakeholders by reducing the information asymmetry between them. First-hand information is always very good for investors and with this gap stakeholders are bound to take wrong decisions that are detrimental to them. Improvement in disclosure and compliance would enhance transparency, accountability and sustainability of firm's value over years which can as well link to the quality of corporate governance in place. The overall significance increase in the rate of voluntary compliance reduces the rate of litigation problem and its associated costs. However, findings from the literature revealed that most of the companies are still struggling to comply and disclose all mandatory items talk about other non-mandatory issues. From the above table, all variables are supposed to be complied with but which are yet to. It should be noted that 'yes' from table 7.1 denote compliance and disclosure with both external laws such as company laws and IFRS and internal laws such as corporate governance codes as it was specified by the model in chapter three while 'no' means the item were not found in their annual reports.

7.3.3 Empirical Objectives

Three empirical objectives were also structured and channeled towards the achievement of the main objective. These objectives were achieved by logically and technically addressing them one after the other through the presentation of graphs, tables and charts.

7.3.3.1 Objective 1- Determine the impact of corporate governance, accounting ratios on the firm value of the selected firms

The first empirical objective which is to determine the impact of corporate governance, accounting ratios on firm value of the selected firms was achieved in chapter six, section 6.4 and Table 6.15. The objective was alienated into two so as to know the impact of corporate governance variables alone on firm value and the accounting ratios variables on firm value. Those variables were later considered together to determine if the effect would change or not. The result arrived at started from the analysis of the properties of all the variables see table 6.11 which revealed that all variables displayed a high level of consistency. This is because mean and median were within their minimum and maximum values. It was also revealed that while market capitalization, board size and director's remunerations were stable as their standard deviations were lower than their mean

value the remaining variables are unstable. It was also revealed that all variables are positively skewed and kurtosis considered some variables very high while some have averagely high and others with flat top. Lastly on descriptive statistics, jarque-bera showed that the null hypothesis of no normal distribution is accepted at 1%.

The result from correlation matrix in general revealed that the regression result would be free from multicollinearity as there was no strong relationship among the independent variables in the study. This conclusion was arrived at because a majority of the probability values was less than 0.5 see table 6.12. Stationarity of the variables were tested see table 6.13 and the result showed that all variables were stationary at level except EPS that is significant after first difference and the hypothesis of non-stationarity was rejected. Kao co-integration was chosen because of the numbers of variables and the result revealed that there is long-run relationship among the variables thereby rejecting the null hypothesis of no co-integration at 1% level of significant see table 6.14. The result from cross-sectional dependency test from table 6.19, 6.20 and 6.21 was also important. The result from all the three approaches are similar however, both Brensch-Pagan LM and Pesaran Scaled LM are significant result at 1% while the third approach is not. These two approaches provided a strong basis to accept the null hypothesis of no correlation at the level of significance of 1%. Since the T in the Panel data is relatively larger than N, attention is focused on the first two results which indicate that the hypothesis of cross sectional independence is not violated and there is no need to account for cross sectional dependency across all the sectors at the NSE.

The result found out that all corporate governance variables employed were significant at level except board size that is significant at 5%. Also corporate governance variable employed were positively related, except market capitalization that has inverse relationship with firm value. However, accounting ratios variables were all positively related to firm value but only debt to equity ratio is significant at 1% while ROA and EPS are insignificant. The interpretation here implies that both corporate governance variables and accounting ratios variables used in the study improves firm value. Although, the effect or impact of accounting ratios variables on firm value could not significantly be felt like that of corporate governance variables as it was revealed in the table 6.15. From this interpretation, since accounting ratios is a product of good or bad governance, it can be deduced that corporate governance and accounting ratio variables have impact on firm value as it has been proven from the above interpretation thereby, this empirical objective one

achieved. However, what can possibly account for different direction of market capitalization between the pooled OLS result and the system-GMM result could be ascribed to either capital market crash that happened in Nigeria during these years under review. It can also be attributed to poor corporate governance amongst firms which is one of the problems this study tried to solve. It reflects the period when the country experienced market shock due to the effect of world economic meltdown shortly after Enron case in 2002, and it was also the era when Nigeria capital market crashed coupled with the recession experienced recently. It was also the era when corporate governance practices of firms were sectionalized and thus firms struggled to apply the rules of code of 2003 corporate governance. Lastly, it could also be shocks from failure or migration of some promising firms in Nigeria. Further test on robustness later correct these conflicting results from both methods.

7.3.3.2 Second objective: To examine the dynamic interaction among corporate governance, accounting ratio and firm value of the selected firms at the Nigerian Stock Exchange Market.

The second empirical objective examined the dynamic interaction among the corporate governance variables, accounting ratios variables and firm value of the selected firms in Nigeria. This objective was achieved in chapter 6 section 6.51 to 6.56 and table 6.17 and 6.18 as well as Figure 6.1. The study employed various impulse response of the variables, variance decomposition, PVECM and other robustness tests such as lag selection test, sensitivity analysis test, cross sectional dependency test were as well employed to achieve this objective. This stated with lag length selection criterion which was tested to avoid any misrepresentation problem and loss of degree of freedom. Lag one (-1) was chosen from the result of (SC) and it was used in estimating PVECM. The result from panel unit root and co-integration were also referred to (see table 6.13 and 6.14) which resulted into long run relationship among the three variables. This confirm the existence of long run relationship among corporate governance, accounting ratios and firm value. Co-integrating result of PVECM of lag length one are considered one after the other as follows: When TQ is considered as the dependent variable, the result revealed that market capitalization was significant and inversely related at 10% to firm value. Other variables such as director's remuneration (DREM), ROA and EPS are significant at 5%, 1% and 1% respectively and positively related to firm value. When market capitalization (MKT) is considered as firm value (dependent variable), all

explanatory variables (TQ, DREM, ROA, and EPS) are positively and significantly related at 5%, 5%, 1% and 1% respectively. When ROA is considered as the firm value, all variables are insignificant while TQ and MKT revealed a positive relationship, DREM and EPS revealed an inverse relationship. Only DREM revealed a negative relationship when EPS is considered as the firm value and only ROA is significant at 5% while other variables are positive and insignificantly related. When DREM is also considered, only EPS revealed a negative and significant relationship while MKT showed a positive and insignificant relationship, TQ and ROA revealed a positive and significant relationship.

From the overall result, among all the variables employed in this study, market capitalization proved to be the most important variable impacting firm value. This is because all variables are significant and positively related to market capitalization when it was used as a proxy to firm value. This is followed by TQ as a proxy to firm value here, all variables are as well significant with only MKT that revealed an inverse relationship. When director's remuneration was considered as firm value, only market capitalization revealed an insignificant result and EPS showed a negative relationship but significant at 5% while TQ and ROA were significant at 10% and 5% respectively. The result was the worst when ROA was considered as a measure of firm value. This is because none of the variables appear significant with inverse relationship from DREM and EPS and with positive relationship from TQ and MKT CAP. The result when EPS when adopted as a proxy of firm value was similar to the result from ROA. However, only ROA is positively and significantly related to EPS while DREM is inversely related, TQ and MKT CAP are positively related but insignificant.

7.3.3.2.1 **Result from Impulse Response**

Because of the complexity and ambiguity of PVECM estimates made the study therefore support the result with other methods such as impulse response and variance decomposition. These methods explained all variables to shocks from other variables (see figure 6.1 and table 6.17). The first row revealed that debt to equity ratio is the only variable that responded negatively to shock from firm value while board size slightly revealed an indifference response. While EPS responded sharply other variables such as MKT CAP, DREM, growth and ROA produced low positive response to shock from firm value. Second row revealed shock from market capitalization lead to growth of the firm. Other variables are slightly affected by the shock from market capitalization.

Third row revealed that any shock from board size of the company's board of directors would inversely affect firm value, market cap, DREM and growth of the firm while it is indifference to debt to equity ratio but ROA and EPS are slightly affected by the shock. From fourth row, shock from director's remuneration positively affected firm value while Mkt cap, board size, growth and EPS are slightly affected by the shock, it is indifference to debt to equity ratio. Row five represents shock from growth of the firm and it is revealed that it is directly related to firm value while growth and market cap and EPS are inversely related other variables are indifference to growth of the firm. Sixth row revealed that ROA have positive impact on firm value, market cap, director's remuneration but negatively related to growth while other variables are indifference to growth of the firm. Seventh row revealed the result from the shock from debt equity ratio to other variables. Result revealed a negative effect on firm value and growth of the firm but positive to market cap, ROA, DREM and EPS but it is indifference to board size. The last row is a shock from EPS, it revealed an indifference result to firm value but positive to market cap and ROA while other variables are slightly negative to the shock.

7.3.3.2.2 Result from Variance Decomposition

This was another method employed in the study to also confirm if there is active interaction among the variables in question. This is related to impulse response because both methods measure shock of the control variable and the endogenous variables. The only different between them is while impulse present its result graphically, variance decomposition present in percentages. Their reports are always the same if all things being equal but variance presents clearer and accurate result than impulse response (see table 6.18). From row one the percentage of the activeness of EPS as one of a variables to measure accounting ratio in this study is 19.1% in the short run improve to 26.9% in the medium run and approximately 29% in the long run. Another accounting ratio variable is ROA which also start with 2.7% to 7.8% in the short run, the growth continues in the middle run to 15.1% in the middle run and 16.8% in the long run. One of the variables of corporate governance is growth which the percentage of it dynamism start from 5.3% grow to 19.8% in the middle run, the growth continue in the long run to 22.2%. Director's remuneration is another variable under corporate governance which also grow from short run to long run. At the year one when TQ which is the measure of firm value stood at 100% all other variables remain at zero. At this point the effect of all the variables have not shown or felt. Shortly after first year companies started creating

values and felt the impact and activeness of other variables, then those companies started experiencing growth in all other parts of the business.

Therefore, objective two, dynamic interaction among the variables is established and achieved. This row revealed EPS with a greater percentage of shock to firm value followed by growth, ROA, market cap respectively. Report from the second row revealed that market capitalization is very important measure of firm value. It is only firm value that start with 6.43% in the short run while other variables fail to grow but started to grow at a diminishing rate when other variable started growing. The implication here is that the growth of any firm and growth of value almost solely depend on the firm's market or stock price. This is followed by ROA and EPS. This row also established that there is active interaction among the variables. Row three also revealed that EPS followed by ROA are the variables that react to shock from board size. The percentage of their reaction are 3.1% and 2.6% respectively in the short run and it reduces 2.1% and 1.8% in the long run, other variables also react but at low rate. Fourth row revealed that any shock from director's remuneration would directly land on firm value followed by market capitalization and the board size. It also had a negative effect on accounting ratios as represented by ROA and EPS and also hinders growth of the firm. Hence activeness of all the variables was confirmed. The fifth row also revealed that shock from growth of the firm as measured by sales turnover in this study, firm value received the highest shock to the tune of 1.4% from beginning to 1.8% in the middle and 1.9 % in the long run followed by market cap with similar report thereby reducing the percentage of accounting ratios as revealed be ROA and debt to equity ratio. This also confirms the activeness of the interaction of all the variables employed in the study. Row six also revealed a shock from ROA would have 17.21% effect on growth of the firm, 3.20% on stock value or market value of the company as measured by market capitalization and 0.30% on firm value as measured by Tobin's q in the short run and grows to 17.4%, 3.3% and 0.28% in the long run. The least affected variable was debt to equity ratio but also grows from 0.0% in the short run to 0.20% in the long run. Results from the seventh row a shock from debt to equity ratio affect growth of the firm. This result can be viewed from two ways, the ratio from debt to equity need to be regulated to get optimum capital structure. This is because high rate of debt is associated with high financial risk which can bring high return if managed very well but if handled carelessly it can also cause corporate failure. Sharp reaction of growth of the firm to DER justified the argument above. In this study this is an example of interaction between corporate governance variable (growth) and

that of accounting ratio variable (DER). This also confirm that there is a dynamic interaction among the variables. Other variables were also affected throughout the period but not as the growth variable. The result from row eight revealed that ROA responded to shock from EPS followed by director' s remunerations and next to market cap. Other variables reacted slowly from short run through medium run and the long run.

In conclusion, it is confirmed from the first row to the last row starting from panel co-integration result that established the presence of long run relationship among the variables to PVECM which also supported the findings to impulse response and lastly to variance decomposition. It is thereby confirmed from the result that any shock from any variable actively responded to the shock immediately from the short run period to long run period. This confirm that there is dynamic interaction among all the variables employed for the study. When there is shock from accounting ratios variables all other variables also feel the effect, the same thing happened when there is shock from corporate governance variables. Therefore, the active interaction among corporate governance, accounting ratios and firm value is confirmed and this confirms the achievement of objective two as stated in chapter one. Also, the summary of the findings from robustness checks revealed a robust result as the interpretation from the analysis produced better and improved results under different dependent variables.

7.3.3.3 **Other test result that validated the achievement of the objectives - Sensitivity Analysis**

The purpose of this sensitivity which is to examine the response of other explanatory variables to different measures of firm value. This is to validate different questions of whether there is dynamic interaction among the variables were also justified by the result from sensitivity analysis. Tables 6.22 to 6.25 are the results of sensitivity analysis which provided answer to this argument. For instance when market capitalization was considered as the dependent variable, it revealed a better result from the analysis especially when compared to when Tobin's q was employed as the dependent variable especially under pool OLS and fixed effect methods. When ROA was considered as the dependent variable, the result was also good under system-GMM and random effect because most of the variables are significant but inversely related. When EPS was considered as the dependent variable, the result was also good especially under system-GMM. Also, when director's remuneration proxy firm value, the result was also good under system-GMM. In general, the sensitivity analysis result revealed that variables are sensitive to change to

different measure of other variables. This confirms that there is active interaction among corporate governance variables, accounting ratio variables and firm value variables and that the results are robust.

7.3.4 Achievement of the third objective: To study the trend analysis of the sampled firms in order to determine the performance of the sectors.

The third and the last empirical objective of this study was is to carry out the trend analysis of the selected firms in relation to their firms and sectoral performance. The result revealed very slow growth on the average and the study attributed the general low result to poor corporate governance and other factors such as government policies, insecurity, poor governance etc. Therefore, to control corporate failure and rate of migration of firms to other neighboring countries, attention of the government must also be drawn to this and which need urgent action. Owing to the alarming increase in corporate failure around the world, this study has come out with a model that if strictly followed it is believed and expected that failure rate would be controlled if not completely eradicated. Findings from each sector are examined one after the other. In the agricultural sector, the two companies under this sector (Presco and Okomu Plc) need to work on their liquidity growth especially Okomu Plc which revealed downward slope of liquidity lately. Sectoral finding revealed that agricultural sector are not doing badly of late especially with regards to growth of their shareholders as measure by EPS of the two firms representing this sector. However, the sector needs to improve on most of the variables. Government should also provide functional sources of finance with little or no interest for all farmer at different categories ranging from subsistence farming to merchandised farming to improve this sector. Not only that but also provisioned of hybrid crops, fertilizer, follow up and market for the products that would keep encouraging them for food security is paramount to any nation. Conglomerate sector is the next and the firms here are John Holt and UACN Plc, report of the two companies here are similar. They need to improve on their general performance. For instance EPS and TQ as a measure of shareholder's return and firm value respectively are growing very slowly and growth in liquidity of UACN need serious attention. All these are serious signs that need to be improved upon through corporate governance and these could be part of the reasons why most of companies moved to the neighboring countries. The next sector is health care which is represented by M&B Plc and Glaxo Plc. Firm value as measured by TQ and market cap of the two companies are growing in the later years. Also growth

in liquidity as measured by current ratio need to be worked upon. ICT is the next sector which was represented by Tripple G and NCR Plc. The two companies need to improve upon their growth through corporate governance. However, NCR's shareholder's wealth as measured by EPS and current ratio as a measure of liquidity are growing slowly which is a good sign but needs to be improved upon. The next sector is natural resources which is only represented by BOC Plc due to non-availability of up to date data of other company in this sector that are listed. However, this company is not doing badly in terms of growth. Hence, it needs to improve upon all the variables as they are growing at a very slow pace as it is revealed by the graph and the chart. Service sector is the next which is represented by Aviation and Briscoe Plc. Generally, companies here are growing slowly thereby need serious attention which can be done by improving company governance. Consumer goods sector is the next which are represented by nestle, 7up Nigeria breweries, Nascon, Cadbury and Vita-foam. The study have more companies here because many company under this sector make public their annual reports promptly. However, growth here are also slow and need urgent attention. Their liquidities are not bad but need improvement except Cadbury and vita-foam Plc. The next sector is oil and gas which is represented by Forte oil and Total Plc. Here growth are encouraging but need to be improved. The Industrial sector is the next which is represented by Berger paint and Ashaka and Lafarge Plc. Growth here are on the average and they need to be visited urgently. The last sector is construction which is represented by Julius Berger and UAC Plc. Growth here picked up lately and it is a good sign if it is sustained. However, management of these companies should be able to improve this through good governance if it is in place. In general, on the average all the sampled firms employed revealed a low and slow growth rate that needs serious attention. It should be noted that this findings is based on growth rate alone and not corporate failure prediction. However, if companies continue to experience reduction in growth rate yearly, it can as well lead to failure in the long run. That is the reason these findings should not be taken lightly. Therefore, this is a warning caution signs that need to adhere to by individual company's management.

7.3.5 The main objective of the study is to develop a model that indicates the effect of corporate governance initiatives on accounting ratios and company value sustainability.

The achievement of the main objective which is to develop a model was achieved using structural equation modeling which combines the regression equations stated in chapter five and path analysis model in figure 3.3, page 150 of this study. Good corporate governance with the help of human capital activates all the variables in an organization and improves the rate of interaction among those variables. Strong interaction among corporate governance variables improves the quality of accounting ratios and quality of corporate governance thereby improves company's profitability over years. Yearly improvement of profitability would definitely lead to creation of firm value in the long run and if the pace is kept or there is continuous improvement, value would be sustained. In conclusion, if dynamic or active interaction among all the variables are always alive, firms would not only create value but also sustain value created over years. Hence, the question of increment in the rate of corporate failure around the world would definitely be minimized if not completely eradicated all over the world. The study therefore achieved this primary objective by summarizing the result with structural equation -path analysis model by combining corporate governance variable, accounting ratio variables with path analysis to solve the two equation simultaneously. Path analysis is the diagrammatic representation of a theoretical model using standardized notation. It also combines regression equations between or among measured variables. This model was chosen because it measures the effects of the predator variables on criterion variable which can be direct, indirect or total. The path analysis is presented below:

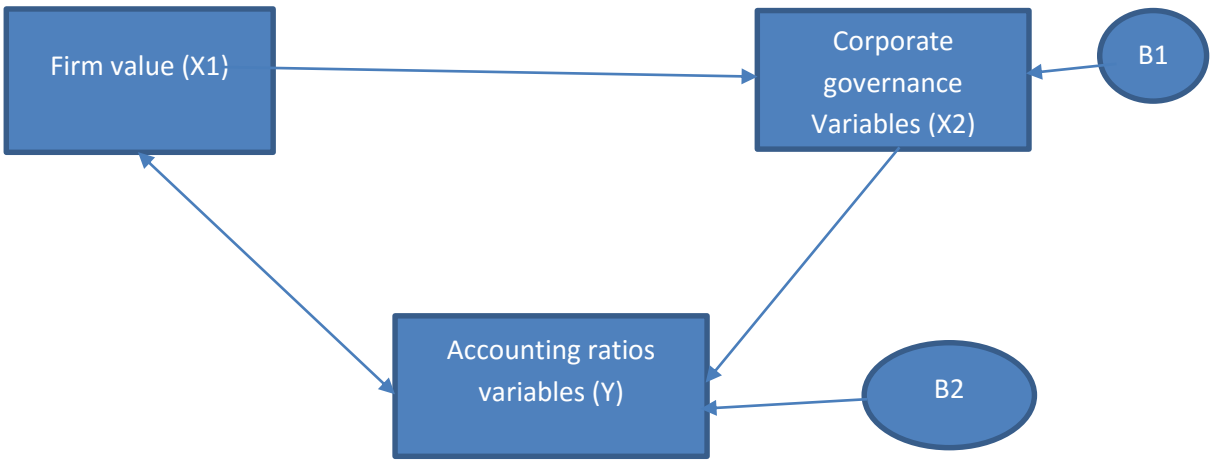


Figure 7.1: Structural Equation-Path-Analysis Model

Source: Own research, 2019

Let the distance between X1 and X2 be A1……. (i)

Let the distance between X2 to Y be A2……..... (ii)

Let the distance between X1 to Y be A3……..... (iii)

From the path analysis above, it shows that firm value (X1) which is the criterion or dependent variable has a direct effect on corporate governance variables as it was revealed in the study result while X2 also has a direct effect on Y and there is an indirect effect of Y on X1.

A1 = has a direct effect of X1 on Y.

A2 = has a direct effect of X2 on Y.

A3 = has a direct effect of X1 on Y.

A1*A2 = indirect effect of X1 on Y

A3 + (A1*A2) = Total effect of X2 and Y on X1.

B1 and B2 represent error term that can affect the variables employed.

7.4 Contribution to the body of knowledge

The study has provoked an insight with respect to the interaction that exists among corporate governance variables, accounting ratios variables and firm value variable. Part of the contribution of this study was the model created for easy detection whether company value is created and whether value created by companies can be sustained. The study also serves as an insight to individual listed firms, shareholders of companies, individual managers and other board of directors of companies, investors both local and foreign, governments, hedgers who would want to buy shares of the companies and analysts who may want to understand more about the performance of companies for an inform decision. The study also sensitized the government of Nigeria by calling its attention to pertinent issues that can negatively affect the economy if urgent action is not taken. The study also raises suggestions on how government can help grow companies and encourage new investors. In addition, this current study has made a significant contribution to the review of theoretical and empirical literature especially with the argument of whether accounting ratios provides a positive impact on firm value or not. The study also provided a model

that can help companies in the creation of firm value and sustainability of the created value over years. The study is also an insight to all listed companies in Nigeria especially decisions relating to their growth rate. The study also clearly provided a link between corporate governance and accounting ratios and with firm value in the world literature. The study provided that accounting ratios should not only be used to analyze and interpret company's financial health but also be used as a tool that guide companies' operation. In conclusion, this research further widens the scope and possibilities for the policy makers in Nigeria, African countries and the world at large to take an informed decision from this study.

7.5 Policy Recommendations

Based on the limitation and the above findings, the following policies are therefore recommended:

1. To achieve firm value sustainability and avert more corporate failure in Nigeria in the world at large, companies need to publish comprehensive accounting ratios alongside with their various annual reports that will improve the level of understanding of other stakeholders.
2. It was also discovered in the study that market capitalization provided a better and improved result when it was employed as a firm value (dependent variable). It is therefore suggested that subsequent studies on corporate governance, accounting ratios and firm value should be subjected to this finding in other countries to further consolidate this finding.
3. Further studies on corporate governance, accounting ratios and firm value need to be carried out especially in other countries. These further studies will enable researchers to test the workability of the model developed all over the world.
4. Government should enact more laws that would enhance the corporate governance practices and promote companies' compliance and disclosure rate so as to reduce the incident of corporate failure.
5. The negative effect of debt to equity ratio in the short run is an indication of harmful and risky effect of debt, especially when it is not well managed. It is therefore, suggested that firms in Nigeria should determine the optimal capital structure that will always maximize company's value at the lowest cost level.
6. Government should create better awareness to the companies that would change mindset and belief of people towards whether corporate governance is a mandatory obligation or not, and that must be complied with.

7. SEC should be more aggressive in their enforcement, ready to sanction any erring company, mandate all companies to publish their transition date to the new code and their commencement date.

8. Companies should be mandated to disclose alongside with their annual report voluntary information that are material for transparency and for decision making by other stakeholders.

9. Nigeria should adopt integrated reporting as part of disclosure requirement and as a means of communication to other stakeholders.

10. Government should create an enabling environment for business to thrive very well considering the importance of the industrial sector to the economy of every nation.

7.6 Limitation of the study

There is hardly any research without its challenges. This study therefore acknowledges the following challenges: It was difficult to include firms in the financial sector due to the peculiarity of the financial statement. Therefore, the study resolved using 10 sectors instead of 11 sectors. Some data was also missing while most 2018 data was also not available when the analysis of this study carried out. Compliance and disclosure of the companies with the 2016 national code of corporate governance could not fully be determined because of the timing of the research and when the code was approved. Thus there was not enough data that could be used to justify whether there was an improvement upon the weak compliance that was discovered with the 2003 code. This is therefore suggested for further studies.

7.7 Conclusion

In conclusion, the results showed that corporate governance and accounting ratios are inseparable-two factors that are directly correlated with a company's value. Good and improved corporate governance is a function of good and improved accounting ratios and would, amongst other things, lead to an improved firm value and growth of the economy in the long-run. This was justified by the empirical results and findings from the literature review. Tuvadaratragool (2013:12) stated that poor corporate governance and low accounting ratios cannot be separated from corporate failure. They are signs that the going concern and good corporate governance cannot be separated from better and improved accounting ratios. These two variables interact together to create and sustain

the value of companies over the years. This study has therefore been proven that corporate governance and accounting ratios impact and improve firm value. It has also furthermore been proven that active interaction exists amongst corporate governance, accounting ratios and the firm value of any given company.

7.8 Suggestion for further studies

This research work has done an in depth analysis as regards the effect and impact of corporate governance, accounting ratios and firm value in the Nigeria context. Future research can still be focused on this area especially with the intention of covering more companies, more variables and more contexts. Therefore, future researchers with the aim of extending this line of work should carry out the analysis based on the cross country analysis to give room for comparative analysis. Also, further study should be done to determine the effectiveness of 2016 national code in the nearest future. However, the study only cover one year after the approval of this code after discovering the weakness of the former code in which the study considered not enough to determine the effectiveness of the code.

General slow growth rate of listed companies in Nigeria should be subjected to further research so as to know whether there will be improvement on their performance in the future.

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APPENDIX

Diagnostic Test

Objective 1

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled

Periods included: 10

Cross-sections included: 23

Total panel (unbalanced) observations: 222

Note: non-zero cross-section means detected in data

Test employs centered correlations computed from pairwise samples

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	454.9727	253	0.0000
Pesaran scaled LM	7.956306		0.0000
Pesaran CD	0.662707		0.5075

Objective 2

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled

Periods included: 10

Cross-sections included: 23

Total panel observations: 230

Note: non-zero cross-section means detected in data

Cross-section means were removed during computation of correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	351.4519	253	0.0000
Pesaran scaled LM	3.354248		0.0008
Pesaran CD	-0.120894		0.9038

Objective three

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled

Periods included: 10

Cross-sections included: 23

Total panel (unbalanced) observations: 222

Note: non-zero cross-section means detected in data

Test employs centered correlations computed from pairwise samples

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	380.8308	253	0.0000
Pesaran scaled LM	4.660296		0.0000
Pesaran CD	0.088836		0.9292

Pedroni Residual Cointegration Test					
Series: TQ BOARD MKT DIRECTOR GROWTH ROA					
Sample: 2008 2017					
Included observations: 270					
Cross-sections included: 2 (25 dropped)					
Null Hypothesis: No cointegration					
Trend assumption: No deterministic trend					
User-specified lag length: 1					
Newey-West automatic bandwidth selection and Bartlett kernel					
Alternative hypothesis: common AR coefs. (within-dimension)					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		-1.641936	0.9497	-1.712017	0.9566
Panel rho-Statistic		1.857831	0.9684	1.834931	0.9667
Panel PP-Statistic		1.045755	0.8522	0.492068	0.6887
Panel ADF-Statistic		1.074041	0.8586	0.919988	0.8212
Alternative hypothesis: individual AR coefs. (between-dimension)					
		Statistic	Prob.		
Group rho-Statistic		2.592443	0.9952		
Group PP-Statistic		1.093068	0.8628		
Group ADF-Statistic		1.522714	0.9361		