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**BOARD ATTRIBUTES, RISK MANAGEMENT, AND  
FIRM PERFORMANCE: AN ANALYSIS OF LISTED  
FINANCIAL SERVICE FIRMS IN NIGERIA**

**MAHMUD, MOHAMMED KAKANDA**



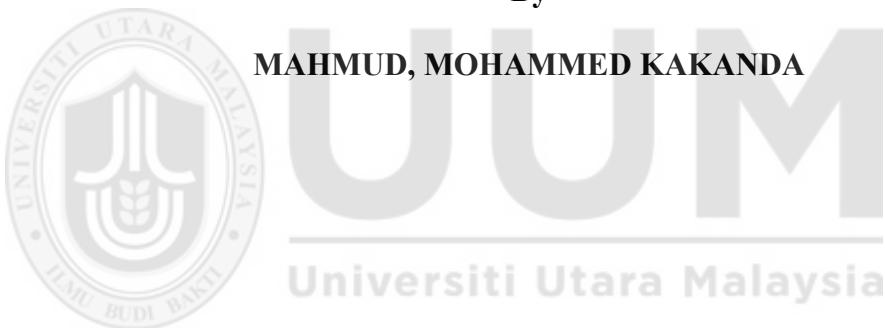
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**BOARD ATTRIBUTES, RISK MANAGEMENT, AND FIRM  
PERFORMANCE: AN ANALYSIS OF LISTED FINANCIAL SERVICE  
FIRMS IN NIGERIA**

By

**MAHMUD, MOHAMMED KAKANDA**



Thesis Submitted to  
**Tunku Puteri Intan Safinaz School of Accountancy, College of Business,  
Universiti Utara Malaysia,**  
**In Fulfilment of the Requirement for the Degree of Doctor of Philosophy**



**TUNKU PUTERI INTAN SAFINAZ**  
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## ABSTRACT

The purpose of this study is to examine the relationship between board attributes and risk management (committee structure, practice, and disclosure) and firm performance (return on asset [ROA], return on equity [ROE], and market-to-book ratio [MTB]) of listed financial service firms in Nigeria from the year 2012 to 2016. Data were collected from the annual accounts and reports of 45 sampled firms (225 firm-year observations). To test the hypotheses developed in this study, the Panel Corrected Standard Errors (PCSEs) regression was used. The result from the multivariate analysis shows that board size and risk management committee meeting have a significant positive effect on firm performance (ROA, ROE, and MTB), while chief executive officer's tenure has a significant positive effect on ROA and ROE. However, board composition, board expertise, risk management committee size, and risk management practice and disclosure have a significant negative impact on all the three performance variables in this study. While board meeting has an insignificant positive effect on ROA and MTB and has an insignificant negative influence on ROE. Risk management committee composition shows an insignificant positive association with firm performance. Consequently, the result of this study portrays the influence of Corporate Governance (CG) mechanisms (board attributes and risk management) in the Nigerian financial institutions. In addition, the findings of this study offer an immense insight to the regulators of CG reforms in Nigeria to review and strengthen the existing CG code where necessary. Besides, this study has also provided an important intuition to the shareholders, corporate managers, financial analysts, and the academic communities to further understand the impact of CG mechanisms on firm performance.

**Keywords:** corporate governance, firm performance, board attributes, risk management committee structure, risk management practice and disclosure.

## ABSTRAK

Tujuan kajian ini adalah untuk menyelidik hubungan antara atribut lembaga dan pengurusan risiko (struktur jawatankuasa, amalan, dan pendedahan) dengan prestasi firma (pulangan atas aset [ROA], pulangan atas ekuiti [ROE], dan nisbah pasaran-kepada-buku [MTB]) firma perkhidmatan kewangan tersenarai di Nigeria dari tahun 2012 hingga 2016. Data dikumpulkan daripada sampel akaun dan laporan tahunan 45 buah firma (225 pemerhatian ke atas pencapaian tahunan firma). Untuk menguji hipotesis yang dibangunkan dalam kajian ini, regresi Panel Piawaian Pembetulan Ralat (*Panel Corrected Standard Errors*) (PCSEs) digunakan. Hasil analisis multivariat menunjukkan bahawa saiz lembaga dan mesyuarat jawatankuasa pengurusan risiko mempunyai kesan positif yang signifikan terhadap prestasi firma (ROA, ROE, dan MTB), sementara pelantikan ketua pegawai eksekutif mempunyai kesan positif yang signifikan terhadap ROA dan ROE. Walau bagaimanapun, komposisi lembaga, kepakaran lembaga, saiz jawatankuasa pengurusan risiko, dan amalan pengurusan risiko serta pendedahan mempunyai kesan negatif yang signifikan terhadap ketiga-tiga pemboleh ubah prestasi. Sementara itu, mesyuarat lembaga mempunyai kesan positif yang tidak signifikan terhadap ROA dan MTB, tetapi mempunyai pengaruh negatif yang tidak signifikan terhadap ROE. Komposisi jawatankuasa pengurusan risiko menunjukkan perkaitan positif yang tidak signifikan dengan prestasi firma. Hasilnya, dapatan kajian ini menggambarkan pengaruh mekanisme Tadbir Urus Korporat (CG) (lembaga pengarah dan pengurusan risiko) dalam institusi kewangan di Nigeria. Di samping itu, penemuan kajian ini menawarkan wawasan yang besar kepada pengawal selia pembaharuan CG di Nigeria untuk mengkaji semula dan mengukuhkan kod CG sedia ada apabila perlu. Selain itu, kajian ini juga memberikan intuisi penting kepada para pemegang saham, pengurus korporat, penganalisis kewangan dan komuniti akademik untuk lebih memahami impak mekanisme CG ke atas prestasi firma.

**Kata kunci:** tadbir urus korporat, prestasi firma, atribut lembaga, struktur jawatankuasa pengurusan risiko, amalan pengurusan risiko dan pendedahan.

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## TABLE OF CONTENTS

TITLE PAGE.....	i
ABSTRACT .....	ii
ABSTRAK .....	iii
TABLE OF CONTENTS .....	iv
LIST OF TABLES .....	ix
LIST OF FIGURES.....	xi
LIST OF ABBREVIATIONS .....	xii

### CHAPTER ONE: INTRODUCTION..... 1

1.1 Background of the Study .....	1
1.2 Problem Statement.....	7
1.3 Research Questions.....	18
1.4 Research Objectives.....	18
1.5 Motivation for the Study.....	19
1.6 Significance of the Study .....	21
1.6.1 Significance to Literature.....	21
1.6.2 Significance to Practice.....	23
1.7 Scope of the Study .....	24
1.8 Organization of the Thesis .....	26
1.9 Chapter Summary .....	27

### CHAPTER TWO: NIGERIAN ECONOMY AND LITERATURE REVIEW... 29

2.1 Introduction.....	29
2.2 Background of Nigeria.....	29
2.2.1 The Political Overview of Nigeria .....	32
2.2.2 The Economic Overview of Nigeria .....	34
2.3 Structure of Nigerian Financial System.....	40
2.4 Regulatory Agencies in the Nigerian Financial Service Industry (NFSI) .....	43

2.4.1	The Central Bank of Nigeria (CBN) .....	44
2.4.2	The Corporate Affairs Commission (CAC) .....	45
2.4.3	The Federal Ministry of Finance (FMF) .....	46
2.4.4	The National Insurance Commission (NAICOM) .....	47
2.4.5	The National Pension Commission (PENCOM).....	47
2.4.6	The Nigerian Deposit Insurance Commission (NDIC).....	48
2.4.7	The Securities and Exchange Commission (SEC).....	49
2.4.8	The Abuja Securities and Commodity Exchange (ASCE) Plc. ....	50
2.4.9	The Nigerian Stock Exchange (NSE) .....	50
2.4.10	Federal Inland Revenue Service (FIRS) .....	51
2.5	Institutional Developments in the Nigerian Financial Sector.....	52
2.5.1	Key Challenges in the Nigerian Financial System.....	53
2.5.2	Financial Institutions' Performance in the (NSE).....	54
2.6	Development of Corporate Governance (CG) in Nigeria .....	55
2.7	Regulations Governing Financial Institutions Practice in Nigeria .....	59
2.7.1	The Company Law .....	59
2.7.2	The Nigerian Code of Corporate Governance (NCCG).....	61
2.8	Underpinning Theory.....	66
2.8.1	Agency Theory.....	67
2.8.2	Resource Dependence Theory.....	72
2.9	Concept of Corporate Performance and its Measurement .....	74
2.9.1	Concept of Performance.....	74
2.9.2	Performance Measurement.....	75
2.10	Corporate Governance .....	77
2.10.1	Concept of Corporate Governance.....	77
2.10.2	Corporate Governance (CG) Mechanisms .....	80
2.10.3	Risk Management Practice and Disclosure.....	122
2.11	Chapter Summary .....	136

## **CHAPTER THREE: RESEARCH FRAMEWORK AND MTHODOLOGY .. 137**

3.1	Introduction.....	137
3.2	Research Framework .....	137
3.3	Research Hypotheses .....	143
3.3.1	Board of Directors' attributes and Firm Performance.....	143
3.4	Control Variables .....	167
3.4.1	Firm Size .....	167
3.4.2	Leverage.....	169
3.4.3	Firm Age .....	170
3.4.4	Asset Tangibility .....	171
3.5	Methodology.....	172
3.5.1	Research Design.....	172
3.5.2	Population of the Study.....	173
3.5.3	Sample Size of the Study .....	173
3.5.4	Method of Data Collection.....	174
3.5.5	Definition and Measurement of Variables .....	181
3.6	Techniques of Data Analysis .....	191
3.6.1	Panel Data .....	191
3.6.2	Descriptive Analysis .....	192
3.6.3	Multivariate Analysis .....	193
3.6.4	Model Specification .....	194
3.7	Chapter Summary .....	196

## **CHAPTER FOUR: RESULTS AND DISCUSSION .. 197**

4.1	Introduction.....	197
4.2	Analysis of the Sample Used.....	197
4.2.1	Distribution of Sample of the Study Based on Company Type .....	198
4.3	Descriptive Statistics.....	199

4.3.1	Annual Mean Descriptive Statistics for 2012 to 2016 .....	207
4.3.2	Descriptive Statistics for Banks and Non-Banks .....	213
4.3.3	Univariate Analysis.....	218
4.4	Frequency of Risk Management Practice and Disclosure Intensity .....	221
4.5	Correlation Analysis .....	228
4.6	Panel Data Analysis.....	234
4.6.1	Missing Data Analysis .....	234
4.6.2	Outliers Detection .....	236
4.6.3	Diagnostic Tests for Multiple Regression Assumptions.....	239
4.7	Results of Lagrange Multiplier (LM) Test .....	249
4.8	Results of F-Test.....	251
4.9	Hausman's Specification Test .....	252
4.10	Model Specification Test.....	253
4.11	Results of Pooled OLS, Fixed Effect, and Random Effect Models.....	256
4.12	Panel Corrected Standard Errors (PCSEs) Estimation .....	266
4.13	Evaluation of the Models.....	269
4.13.1	Model 1 (ROA as Dependent Variable).....	270
4.13.2	Model 2 (ROE as Dependent Variable) .....	274
4.13.3	Model 3 (MTB as Dependent Variable).....	275
4.14	Hypotheses Testing.....	277
4.14.1	Model 1, 2, and 3 (ROA, ROE, and MTB) and Results of Analysis ...	277
4.15	Robustness Check .....	303
4.16	Summary of the Chapter .....	315
<b>CHAPTER FIVE: SUMMARY AND CONCLUSION.....</b>	<b>318</b>	
5.1	Introduction.....	318
5.2	Summary of the Study .....	319
5.3	Implications of the Study Findings.....	327
5.3.1	Implication of the Findings to Theory .....	328
5.3.2	Implication of the Findings to Practice .....	332

5.3.3	Implication of the Findings to Various Company Stakeholders .....	336
5.3.4	Implication of the Findings to Academia.....	337
5.4	Limitation of the Study .....	338
5.5	Suggestions for Future Research .....	339
5.6	Conclusion .....	340
<b>REFERENCES .....</b>		<b>344</b>
<b>APPENDICES.....</b>		<b>401</b>



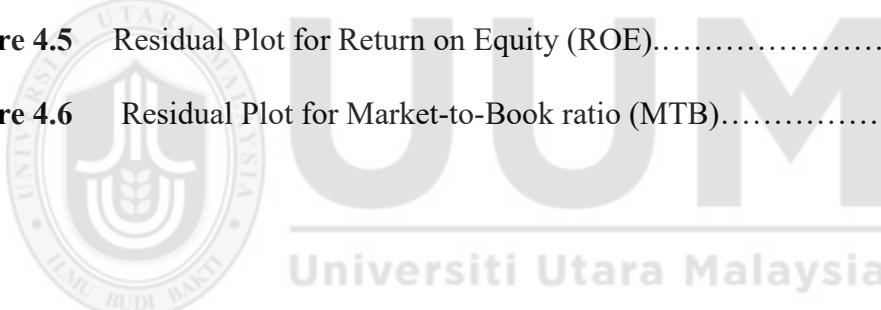
## LIST OF TABLES

<b>Table 2.1</b>	Sectoral Growth Summary for 2011 and 2012.....	36
<b>Table 2.2</b>	Inflation Rates Summary from 2011 to 2017 (7 Months).....	38
<b>Table 2.3</b>	Summary of CG Mechanisms and Performance Literature.....	131
<b>Table 3.1</b>	Listed Financial Service Firms in Nigeria (December, 2016).....	401
<b>Table 3.2</b>	List of Sampled Firms in the Study.....	403
<b>Table 3.3</b>	Risk Management Practice & Disclosure Index.....	178
<b>Table 3.4</b>	Risk Disclosure Categories Explained.....	179
<b>Table 3.5</b>	Rating on Degree of Risk Management Practice & Disclosure.....	180
<b>Table 3.6</b>	Summary of Research Variables and their Measurements.....	189
<b>Table 4.1</b>	Analysis of Sample Used.....	198
<b>Table 4.2</b>	Sample of Companies According to Type.....	198
<b>Table 4.3</b>	Descriptive Statistics for Continuous Variables.....	200
<b>Table 4.4</b>	Mean Descriptive Statistics from 2012-to-2016 (Full Sample).....	208
<b>Table 4.5</b>	Descriptive Statistics for Banks and Nonbanks.....	214
<b>Table 4.6</b>	Univariate Comparison of banks and Nonbanks.....	219
<b>Table 4.7</b>	Governance Structure Related to Risk Management.....	223
<b>Table 4.8</b>	Risk Mgt Committee Responsibility & Function.....	223
<b>Table 4.9</b>	Description of Risk Mgt Com'tee Policies & objectives.....	224
<b>Table 4.10</b>	Audit Committee Responsibility & Function.....	224
<b>Table 4.11</b>	Capital Market Disclosure.....	225
<b>Table 4.12</b>	Environmental Risk Disclosure .....	225
<b>Table 4.13</b>	Operational/other Risks Disclosure.....	226
<b>Table 4.14</b>	Risk Management Practice and Disclosure (RMPD).....	227
<b>Table 4.15</b>	Result of Pearson Correlation Analysis.....	230

<b>Table 4.16</b>	Univariate Analysis of Missing Values.....	235
<b>Table 4.17</b>	Multivariate Outliers Detection.....	238
<b>Table 4.18</b>	Multicollinearity Test.....	243
<b>Table 4.19</b>	The Standard Deviation of Dependent Variables & Residuals.....	245
<b>Table 4.20</b>	Breusch-Pagan/Cook-Weisberg Test.....	246
<b>Table 4.21</b>	Pesaran's CD (Cross-Sectional Dependence) Test.....	247
<b>Table 4.22</b>	Wooldridge Test.....	249
<b>Table 4.23</b>	Breusch-Pagan Langrange Multiplier (LM) Test.....	250
<b>Table 4.24</b>	F-Test.....	251
<b>Table 4.25</b>	Hausman Test.....	253
<b>Table 4.26</b>	Linktest for Model Specification.....	254
<b>Table 4.27</b>	Ramsey RESET Test.....	256
<b>Table 4.28</b>	Pooled OLS, Fixed Effect, & Random Effect Results.....	258
<b>Table 4.29</b>	Main Regression Results (Panel Corrected Standard Errors).....	271
<b>Table 4.30</b>	Summary of Hypotheses Tests for Model 1 to 3.....	301
<b>Table 4.31</b>	Summary of Overall Results of Hypotheses Testing.....	303
<b>Table 4.32</b>	Panel Corrected Standard Errors (PCSEs) for Banks.....	304
<b>Table 4.33</b>	Panel Corrected Standard Errors (PCSEs) for Nonbanks.....	307

## LIST OF FIGURES

<b>Figure 1.0</b>	Scope of the Study out of Quoted Firms in Nigeria.....	25
<b>Figure 2.1</b>	Six Geo-Political Zones in Nigeria .....	31
<b>Figure 2.2</b>	Structure of the Nigerian Financial System .....	42
<b>Figure 2.3</b>	Performance of Listed Financial Service Firms in NSE Market.....	55
<b>Figure 3.1</b>	Research Framework.....	142
<b>Figure 4.1</b>	Average Performance of Financial Service Firms in Nigeria.....	209
<b>Figure 4.2</b>	BACON Outlier Frequency Graph.....	238
<b>Figure 4.3</b>	Mahalanobi's $D^2$ Data Error Graph.....	239
<b>Figure 4.4</b>	Residual Plot for Return on Asset (ROA).....	241
<b>Figure 4.5</b>	Residual Plot for Return on Equity (ROE).....	241
<b>Figure 4.6</b>	Residual Plot for Market-to-Book ratio (MTB).....	242



## LIST OF ABBREVIATIONS

ABBREVIATION	FULL LIST
AMCON	Asset Management Corporation of Nigeria
ASCE	Abuja Securities and Commodity Exchange
ASTAN	Asset Tangibility
BCOMP	Board Composition
BEXP	Board Expertise
BMT	Board Meeting
BSZ	Board Size
CAC	Corporate Affairs Commission
CAMA	Companies and Allied Matters Act
CBN	Central Bank of Nigeria
CEOT	Chief Executive Officer's Tenure
DMBs	Deposit Money Banks
FAG	Firm Age
FIRS	Federal Inland Revenue Service
FMF	Federal Ministry of Finance
FSZ	Firm Size
LEV	Leverage
NAICOM	National Insurance Commission
NCCG	Nigerian Corporate Governance Code
NDIC	Nigerian Deposit Insurance Commission
NSE	Nigerian Stock Exchange

OECD	Organization for Economic Co-operation and Development.
PENCOM	National Pension Commission
RMCC	Risk Management Committee Composition
RMCM	Risk Management Committee Meeting
RMCS	Risk Management Committee Size
RMPD	Risk Management Practice and Disclosure
ROA	Return on Assets
ROE	Return on Equity
SEC	Securities and Exchange Commission
UK	United Kingdom
US	United States



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

Today's business environment has been highly competitive and often volatile in nature due to frequent changes and rapid advancement in technology. However, this has reshaped the decision-making process of various businesses in meeting growth and development objectives via; profit making, maximizing shareholders' value, growth in market share by attracting investors, and in strive to suit in the current and ever changing global business trends. Besides, in the quest to ensure growth and development, businesses engage in investments accession with investors.

Coherently, investors often ensure that a business is financially reliable and stable, and that long-term profit generation is guaranteed before investing in a given venture (Millan, 2007). The investors are after a better performance of a company because it is the essential requirement for an organizational survival and growth (Kakanda, Salim, & Chandren, 2016a). Similarly, Kakanda, Bello, and Abba (2016b) stressed that "performance is a key to determine the perpetuity of a business set up. It is regarded as the foremost objective of profit-oriented organizations. A well-performing business is often one that is effective and efficient in securing its long-term success. Managers of corporate entities are much concerned about high performance, as it has a long-term effect on their corporations ranging from an adequate utilization of resources and investors' wealth maximization" (p. 212).

Performance as an essential requirement for survival and growth of a company is considered as the process by which the limited amount of resources available to an organization are effectively and efficiently managed in achieving its predetermined objectives for both short and long-term periods. It is the increase in wealth of a shareholder from the beginning of one accounting period to the end of another period (Berger & Patti, 2002; Marn & Romuald, 2012). In this regard, the primary objective of shareholders investing in a venture is to ameliorate their wealth from one level to a better level, and this could only be achieved when the business is doing well. Thus, the performance of a company will depict how better of a shareholder has become on the investment in an entity over a given period of time.

Subsequently, the financial reliability and stability, and profitability of a business solely depend on the process and practice of its corporate governance, and with effective corporate governance in operation, it is assumed that the long-term value of stakeholders will be enhanced (Cohen, Krishnamoorthy & Wright, 2002). Similarly, a crucial and valuable stair in constructing and encouraging market confidence, alongside more stable and long-term investment flows, depends mainly on good established corporate governance (Barbu & Bocean, 2007).

Historically, the earlier seminal work of Berle and Means (1932) set the pace for most of the works in the field of corporate governance. The work titled 'separation of ownership and control' was published immediately after the stock market crash of the United States in 1929. The separation has been assumed to generate an agency relationship between owners (the principals) and managers (the agents). It is expected that the agents (managers) would apply their overall proficiency and skills in

maximizing returns to shareholders. This assumption doesn't hold in the real world because it is on fantasy conclusion (Tosuni, 2013).

Remarkably, the Organization for Economic Co-operation and Development (hereinafter, OECD) which is a unique forum where governments of over thirty (30) different economies work in common to tackle economic, social and governance challenges of globalization as well to achieve their objectives, has been the fore-runner in defining corporate governance. OECD (2004) refers to corporate governance as the procedures used by organizations in pursuing their set objectives in the circumstances of social, regulatory and market surroundings, and the practices of corporate governance are being affected by an effort to align shareholders' interests (wealth maximization) (Adrian, 2009).

However, the theme of corporate governance has over the years received greater attention from governments, non-governmental organizations, managers, academicians, investors, and other stakeholders (Claessens & Fan, 2002). In essence, it is particularly due to the Asian financial crisis in 1997, which has slightly resulted from the long economic crisis in Japan in the early 1990s (Kyereboah-Coleman, 2008; Sachs, 1998). This has negatively affected the performance of many East-Asian corporations, hence, an impetus for researchers to posit that the economic crisis in East Asia has to a great extent emanated from malfunction corporate governance that leads to poor performance (Marn & Romuald, 2012).

In the same way, the high-profile of financial scandals that leads to the downfall of giant corporations in the United States in 2001 and 2002 such as, Enron, World Com, Lehman

Brothers, Commerce Bank, and Parmalat in Italy among others, have recaptured the attention and interest of academic researchers, policy makers, regulatory bodies, investors and other stakeholders about corporate governance alongside its influence on the performance of firms (Kyereboah-Coleman, 2008; Benjamin, 2009; Gill & Mathur, 2011; Fallatah & Dickson, 2012; Shahwan, 2015). In this effect, Brown and Caylor (2006), Jackling and Johl (2009), and Bohren and Strom (2010) opined that the financial scandals in the aforementioned corporations was due to the manipulations of their financial statements to inflate performance figures which crumbled investors belief in capital markets and existing corporate governance effectiveness in elevating transparency and accountability as unraveling by investigations (Gill & Mathur, 2011).

Similarly, Oyebode (2009) opined that the loss of confidence by investors in the companies quoted in the Nigerian capital market resulted from poor corporate governance practice that leads to poor performance that has led to the crash in the share price of companies most especially banks that are operating in the financial service sector. In a twin dimension, Rogers (2008) reports that poor corporate governance practice had also led to the collapse of some banks in Uganda, such as Uganda Corporative bank, Greenland Bank, and International Credit bank. Equally important, the 2008 global financial crisis, has predominantly affected every sector and country, because the excessive and failures were at the core of the financial system (especially banking sector) which transmitted the ramifications rapidly on the global economy (International Monetary Report [IMF], 2009). However, IMF linked this to poor corporate governance practice in the financial sector of the global economy.

Accordingly, failure in the financial sector may be contagious to other sectors of the economy, as it serves as a financial intermediary, and as an auxiliary in enhancing the growth of an economy (IMF, 2009). Therefore, financial institutions are considered as the key economic players in every nation. This is in corroboration with the view of Sutton and Beth (2007) that financial services sector is the largest in the world in terms of returns maximization. Besides, it consists of wide range of businesses involving merchant banks, credit card companies, to mention but a few. Moreover, the authors state that financial services enable the commencement of new businesses, increase business growth potential and efficiency, and as well assist companies to compete at both national and international markets.

At the same time, the financial sector of every economy is the most important oil that lubricates its growth and development, and it is the key player that mobilizes funds from the surplus sector to the deficit sector of the economy (Adekunle, Salami & Adedipe, 2013). Aderibigbe (2004) reveals that financial sector has over the years immensely assists in easing and promoting business transactions and economic growth in Nigeria.

To Wong (2012), financial institutions are considered the main pillars of the economy of every nation and involve in a business with potential risks. The author assumed that since risk management is very vital to the financial institutions toward obtaining their predetermined goals and objectives, they are therefore required to publish in their annual reports, all matters regarding risk management policies. This is because “various stakeholders to financial institutions, especially investors, rely on these risk management disclosures to assess the adequacy and appropriateness of the risk management practices of financial institutions” (Wong, 2012, p. 2).

Recently, risk management committee structure has turned into a critical issue with a ton of attentions, and activities on risk management are viewed as part of the momentous audit committee functions (Ng, Chong, & Ismail, 2012). Still, numerous corporate catastrophes like Enron and WorldCom have become a challenge to the trust that shareholders placed on auditor's report, and this has cast doubt on the integrity of audit committees in monitoring and implementing programs on risk management (Bates & Leclerc, 2009). Consequently, this prompts the need for risk management committee structure (RMC) to oversee and implement risk management programs. In essence, RMC structure has some features that encompass RMC size, RMC composition (Independence), and RMC meetings (Ng et al., 2012).

Generally, assessment and determination of effective corporate governance can be on the basis of different principles. These principles include principles of disclosure and transparency, relationship with investors and other stakeholders, policies and compliance, and members of a board of directors' attributes (Shahwan, 2015). Boards of both private and public firms are responsible to ensure that the interests of companies' stockholders are met, and also to guarantee the financial steadiness and performance of such companies (Ethics Resource Center, 2002).

Topal and Dogan (2014), opined that the main duty of the board of directors is to direct the overall activities of the corporation in a more cautious and proactive way because they are the apex authority in the decision-making process, and their directive to the corporation enables a continuous profit to the shareholders in the long-run. Board of directors is considered as the most important mechanism of organizational governance that is responsible for overseeing the decisions of the executives (Al-Manaseer, Al-

Hindawi, Al-Dahiyat, & Sartawi, 2012). Therefore, this study attempts to assess the relationship between corporate governance represented by board attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee (RMC) structure, (RMC size, RMC composition, RMC meetings), risk management practices and disclosure and performance of listed financial service firms in Nigeria.

## **1.2 Problem Statement**

Corporate governance has for long become an issue of global concern due to excessive corporate failures that resulted from poor corporate governance practice. Among the cases are Enron, World Com and Lehman Brothers in the United States, Parmalat in Italy, and Malaysian Airlines System (MAS) in Malaysia, Spring Bank Plc and Fin Bank Plc in Nigeria (Benjamin, 2009; Fallatah & Dickson, 2012; Gill & Mathur, 2011; Kyereboah-Coleman, 2008; Marn & Romuald, 2012; Rogers, 2008; Shahwan, 2015). The central theme of the issue being debated is the failure of the board of directors in playing their role of monitoring and counselling, and reporting the activities of the company for the interest of shareholders, whose expectations are having a better return on their investments (Uadiale, 2010).

In 2008, the issue of corporate failures resulting from the global financial crisis has become severe because it is related to financial institutions which are the main pillars of capital market stability (IMF, 2009). This is because, financial institutions serve as financial intermediaries for a mortgage, government securities, corporate debt, equity markets, and derivatives. Apart from these, financial institutions are also involving in

stock exchanges, currency exchanges, providing liquidity in the market and managing of risks in price changes that are very important for the economy (CBN, 2015). Therefore, failure in the effective operation of these institutions may be detrimental to other sectors in an economy.

To address the fundamental deficiencies in financial institutions (specifically banks) corporate governance that became apparent during the 2008 and 2009 global financial crisis, the Basel Committee on Banking Supervision (BCBS) has revised its erstwhile recommendations for adoption of sound corporate governance by banks in 2010 (Bank for International Settlement, 2010). Following BCBS's recommendation, emerging economies in the world have designed policies to implement best practice bank management in which Nigeria is also not left out.

In the same vein, Karatzias (2011) maintains that “several large financial institutions worldwide no longer exist or have been taken over precisely because they neglected the basic rules of risk management and control” (p. 146). Moreover, OECD (2009) reports that there are some common problems relating to risk management and corporate governance that are present in numerous financial institutions prior to, and during the 2008 global financial crisis. The problems include: (1) Risks are not frequently linked to business strategy which is a major subject in ensuring that the management of risk is the central focus on the operations of the business; and (2) Corporate board of directors do not take into consideration stakeholders and custodians in reporting responses to risks and its management.

Similarly, global economic crisis and the collapse of large corporations over a decade have caused great concern on the inadequacy of corporate governance practices and risk management disclosures in the financial markets (Buckby, Gallery, & Ma, 2015). As a result, the inadequate corporate disclosures on its activities, corporate governance practices, and risk management practices, have a significant effect on the investor's ability in evaluating public companies and its associated risks (Abraham & Shrives, 2014).

In an attempt to mitigate the problem of risk in organizations, several standards are developed. For instance, regarding financial institutions, the Bank for International Settlement (2011) states that in 2006 it published a document '*Principles of the Sound Management of Operational Risk and the Role of Supervision*' which substitutes the 2003 '*Sound Practices*'. The new principles are contained in the document that is referred in paragraph 651 of Basel II, and it has principles of sound risk management involving: (1) corporate governance, (2) risk management environment, and (3) role of disclosure.

The Basel II contains principles for the management of operational risk in banks, and these fundamental principles are;

Principle 1: "The board of directors should take the lead in establishing a strong risk management culture. The board of directors and senior management should establish a corporate culture that is guided by strong risk management and that supports and provides appropriate standards and incentives for professional and responsible behaviour. In this regard, it is the responsibility of the board of directors to ensure that a strong operational risk management culture exists throughout the whole organization" (Bank for International Settlement, 2011, p. 7).

Principle 2: “banks should develop, implement and maintain a Framework that is fully integrated into the bank’s overall risk management processes. The Framework for operational risk management chosen by an individual bank will depend on a range of factors, including its nature, size, complexity, and risk profile” (Bank for International Settlement, 2011, p. 7).

Principle 3: “The board of directors should establish, approve and periodically review the Framework. The board of directors should oversee senior management to ensure that policies, processes and systems are implemented effectively at all decision levels” (Bank for International Settlement, 2011, p. 8).

Principle 11: “A bank’s public disclosures should allow stakeholders to assess its approach to operational risk management. Because a bank’s public disclosure of relevant operational risk management information can lead to transparency and the development of better industry practice through market discipline. The amount and type of disclosure should be commensurate with the size, risk profile and complexity of bank’s operations, and evolving industry practice” (Bank for International Settlement, 2011, p. 18).

Nevertheless, the issue of corporate failure and its associations with weak governance that leads to poor performance is also experienced by Nigeria. In this regard, the Nigerian capital market has been shocked from the global financial crisis which leads to loss of jobs and investor confidence in the capital market, alongside, doubt in the effectiveness of existing corporate governance practice (Mmadu, 2013; Ironkwe & Ade, 2014). Moreover, from 2008 to 2010, investors in the Nigerian capital market have suffered a drop-down of \$61.64 billion (₦9 turn.) or 70% of their investments due to lack of effective compliance to the code in practice, which leads to the issue of a revised Nigerian Code of Corporate Governance (NCCG) in 2011 (Securities and Exchange Commission [SEC], 2012).

Moreover, Bello (2013) reveals that there is widespread of financial misconduct that led to the declaration of many banks as failed and distressed in the Nigerian financial service sector which is a major player in saving and distribution of funds from the available

stream to the shortfall sector within the economy. Likewise, some banks have poor performance and liquidity problem due to ineffective corporate governance practice because only less than 50% of the listed firms in Nigeria observe effective corporate governance practice (Mmadu, 2013), and non-adherence to banks' risk management practices (Sanusi, 2010).

Pertinent to mention, the failure and weak corporate governance in Nigerian financial sector (majorly banks) is undoubtedly the major factor that significantly contributes to the financial crisis in the economy (Sanusi, 2010). The author further states that corporate governance in many banks and non-banks financial institutions failed because their board of directors ignored its practices due to misleading behaviour by executive management, lack of required expertise by board members to enforce good governance on management, CEO/chairman often had domineering control on the boards, and the board committees are also often ineffective or even dormant. In the same vein, failure of some companies in the Nigerian financial sector results from inadequate risk management framework for identifying and measuring of risk, and lack of adequate and a transparent disclosure of such risks and other activities (CBN, 2010).

Notably, bank consolidation exercises took place in Nigeria in 2005 and 2009 which arose from the erosion of shareholders' funds largely due to unethical managerial practices in banking sector (Onakoya, Fasanya & Ofoegbu, 2014), and declining quality of their risk associated assets resulting from fall in equity market prices, world oil prices, and naira value compared to other nations' currencies (BGL Banking Report, 2010) cited in Dugguh & Diggi, 2015).

Over the years, the Nigerian financial institution has suffered from deteriorating movements in both capitalization and profitability (Dugguh & Diggi, 2015), because out of twenty-four (24) banks, only 3 are said to be profitable while 8 are on the brink of distress and failure due to inadequacy of capital and risk asset diminution (CBN, 2010). Moreover, other factors like a significant failure in corporate governance at banks, macroeconomic instability, enforcement and irregular supervision were responsible for ensuring delicate financial system and which has set risk in the system (CBN, 2010).

Report from CBN (2010) shows that the failure of some companies (especially banks) in the Nigerian financial institution in 2005 and beyond was due to some factors like failures in corporate governance (weak and poor), neglect by board members in discharging their role (inadequate knowledge of the board), inadequate disclosure and transparency in reporting, inadequate risk management frameworks for identifying, measuring and controlling the risks associated with the activities of deposit money banks (DMBs) and other financial institutions among others which placed them (financial service firms) to be operating at the risk of failure.

In a nutshell, capital risk and market risk may be the major risks that evolve around the operations of financial service firms in Nigeria that puts them on the verge of failure. Concurrently, Dugguh and Diggi (2015) maintained that the problem of risk management that leads to failure in the Nigerian financial institution is subject to recurrence. The authors added that the Nigerian industry has witnessed widespread of corporate failure starting from 1930 to date. For instance, 21 banks failed in 1930, 9 in

1958, 7 in 1989, 63 in 2006, and 3 in 2011 (being acquired by Asset Management Corporation of Nigeria, AMCON).

More recently, the Central Bank of Nigeria has dissolved the board and retrenched the CEO of a particular company (Skye Bank) on July 4, 2016, due persistent loss and fall in value of investment which causes loss of confidence in minds of investors, depositors, and other stakeholders (in press, channelstv.com). However, to mitigate the problem, CBN instituted its staff as the new CEO of the bank and appoints its other staff to form a new board of directors. Surprisingly, with newly appointed CEO and board members by CBN, the share value of Skye Bank increases by \$166,666.67 (₦50m) as evidenced in the Nigerian Stock Exchange. Therefore, this indicates that both CEO and board of directors of companies have a significant relationship with performance and value of firms.

However, in the quest to mitigate the risk of failure in the Nigerian financial sector, the CBN has in 2005 requires all commercial banks to have a minimum capitalization base of \$193.8m (₦25b) in order to continue operating. Other measures taken by CBN from 2005 to date include; establishment of the financial stability committee, establishment of the Asset Management Corporation of Nigeria (AMCON), review of supervisory procedures and methodology, renewed collaboration with other regulators, adoption of a common year-end for banks, and revision of corporate governance that include risk management framework and its reporting among others (CBN, 2010).

The Society for Corporate Governance in Nigeria, SCGN (2011) reports that corporate governance and risk management is not effectively practised by some firms in Nigeria

because of inadequacies in the Nigerian Code of Corporate Governance (hereinafter, NCCG) issued by SEC in 2003, alongside ignorance of the board in discharging their functions. SCGN recommends that the selection of board members should be based on skill and experience, and a risk management committee should be established separately from audit committee in corporate organizations.

Consequently, the Nigerian SEC revised its erstwhile Code of CG in 2011 which emphasizes on the establishment of a risk management committee and its framework by the board of publicly trading companies in the country. The NCCG 2011 states that the board is responsible for the oversight function and effective implementation of risk management framework, and its annual review to ensure full compliance. It also added that the risk management committee should be of adequate size, composed of non-executive directors, and should hold meetings to strengthen the performance of firms, and practice of such risk management be disclosed in the annual reports of the companies which are of high interest to investors.

Equally important, Yatim (2010) opines that “boards that establish a stand-alone committee that focuses solely on the risk management function demonstrate their commitment to improving the overall corporate governance structures of their firms” (p. 18). In addition, financial and non-financial companies that have complex or huge risks are to provide a familiar reporting system involving direct reporting of risk management to board of directors who are acting on behalf of shareholders (OECD, 2015), and reports on the risk management practices of firms are normally disclosed in their published annual reports (Wong, 2012).

Typically, it has become prevalent that the issue of corporate governance and firm performance has become a global interest particularly following the global financial crisis and financial scandals in different economies. Thus, regulators, managers, academicians, investors and other stakeholders are increasing their efforts to infuse suitable controls through effective corporate governance in various economies (Benjamin, 2009; Ibrahim, Rehman & Raoof, 2010; Fallatah & Dickson, 2012). As a result, several empirical studies are conducted to assess the relationship between various corporate governance mechanisms and performance of firms. However, most of these studies are extensively conducted in developed nations, albeit there are lots of the said studies in developing nations but seldom in financial service sector especially in an emerging economy like Nigeria that has a different economic setting and financial market. Again, the results of these studies are found to be inconclusive and disputing in the literature regarding corporate governance mechanisms and firm performance.

To be more specific, one stream of studies found that positive relationship exists between corporate governance mechanisms and firm performance (e.g., Abdul-Qadir & Kwanbo, 2012; Afrifa & Tauringana, 2015; Al-Matari *et al.*, 2014a; Chechet Jnr., & Akanet, 2013; Elyasiani & Zhang, 2015; Fauzi & Locke, 2012; Gill, Biger, Mand & Shah, 2012; Joe Duke & Kankpang, 2011; Liang, Xu, & Jiraporn, 2013; Ngerebo-A & Yellowe, 2012; Ogege & Boloupromo, 2014; Pamburai, Chamisa, Abdulla, & Smith, 2015; Peter & David, 2014; Velnampy & Pratheeepkanth, 2013).

Conversely, other studies show a negative association between corporate governance mechanisms and firm performance (e.g., Arouri, Hossain, & Badrul Muttakin, 2014; Erah, Samuel & Izedonmi, 2012; Gill & Obradovich, 2012; Guest, 2009; Hauser, 2013;

Mang'uni, 2011; Marn & Romuald, 2012; Narwal & Jindal, 2015; Nwonyuku, 2016; O'Connel & Cramer, 2010; Vafeas, 1999), whereby some studies found no relation between corporate governance mechanisms and performance of firms (e.g., Ezugwu & Itodo, 2014; Mukulu & Blessing, 2014; Ndiwalana, Ssekakubo, & Lwanga, 2014; Onakoya *et al.*, 2014).

However, despite the significant move by the aforementioned empirical findings on investigating the relationship between corporate governance mechanisms and firm performance, studies on the relationship between risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings) and firm performance is still scant in literature. In addition, studies on risk management reporting (e.g., Abdullah, Abdul Shukor, Mohammed, & Ahmad, 2015; Abraham & Shrive, 2014; Amran, Manaf Rosli, Che Haat Mohd Hassan, 2008; Buckby *et al.*, 2015; Dabari & Saidin, 2015; Wong, 2012) ignore to link the relationship between risk management practices and reporting with firm performance.

Theoretically, agency theory has been the dominating theory in research on corporate governance (Fama, 1980; Fama & Jensen, 1983; McKnight & Weir, 2009; Shleifer & Vishny, 1986), because the theory focused commonly on agency relationship, where shareholders (the principal) delegates work to managers (the agents) who carries out the work, and agency theory tries to define this relationship by means of a symbol of contract (Jensen & Meckling, 1976). Moreover, without effective and efficient control procedures, corporate managers may likely take actions or make decisions that diverge from shareholders' interests which result in agency cost (Fama & Jensen, 1983). As a

result, Eisenhardt (1989) argues that corporate board of directors will serve as a means to monitor the activities of corporate managers so as to reduce agency costs and improve performance.

Nevertheless, utilization of agency theory on corporate governance study is not enough because it's not the only theory that concentrates on board function. This accord with Hillman and Dalziel (2003), that resource dependence theorists and agency theorists focused on a single board function (monitoring/resource provision) at the expense of one another, paying to a partial understanding of board function and how it affects firm performance. In this effect, Hillman and Dalziel recommend that the integration of agency and resource dependence theories is significant because it can assist in overcoming the contemporary myopic issues surrounding both streams of research, because resource dependence theory is based on how board provides resources (expertise, experience, and reputation) to the firm in order to reduce dependence on external environment (Hillman & Dalziel, 2003; Pfeffer, 1972).

Therefore, as a result of inconclusive and mixed findings in previous studies, excessive failure of some companies in the Nigerian financial institutions resulting from poor corporate governance practice, poor performance, and inadequate disclosure of risk management practices by the companies, this study becomes worth to be conducted. As such, this study will examine the relationship between corporate governance represented by board attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings) and firm performance. Again, the study will investigate the relationship between risk

management practices and disclosure and firm performance specifically in the financial service sector in Nigeria.

### **1.3 Research Questions**

This study tries to examine the relationship between corporate governance and performance of listed financial service firms in Nigeria. Particularly, the study attempts to address the following research questions:

1. What is the extent of disclosure of risk management practice by the listed financial service firms in Nigeria?
2. What is the relationship between board attributes (board size, board composition, board meetings, CEO tenure, and board expertise) and performance of the listed financial service firms in Nigeria?
3. What is the relationship between risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meetings) and performance of the listed financial service firms in Nigeria?
4. What is the relationship between risk management practices and disclosure and performance of the listed financial service firms in Nigeria?

### **1.4 Research Objectives**

The primary purpose of this study is to examine the relationship between corporate governance mechanisms and performance of listed financial service firms in Nigeria

from 2012 to 2016. Therefore, in order to answer the research questions in the preceding section, this study comes up with the following specific objectives:

1. To determine the extent of disclosure of risk management practice by the listed financial service firms in Nigerian.
2. To ascertain the relationship between board attributes (board size, board composition, board meetings, CEO tenure, and board expertise) and performance of the listed financial service firms in Nigeria.
3. To assess the relationship between risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meetings) and performance of the listed financial service firms in Nigeria.
4. To examine the relationship between risk management practices and disclosure and performance of the listed financial service firms in Nigeria.

## **1.5 Motivation for the Study**

This study is motivated on the premise that the performance of firms is a vital element in ensuring their long-term survival and growth (Kakanda *et al.*, 2016a). It is understood that an effective Corporate Governance (CG) practice enhances shareholders' value and firm's performance (Cohen, Krishnamoorthy & Wright, 2002). Even though past studies have used various mechanisms of corporate governance in establishing a relationship with corporate performance, yet, studies on risk management committee are limited and remain inconclusive (Ng *et al.*, 2012), and empirical evidence on risk management committee and its associated factors remain little in literature (Subramaniam, McManus,

& Zhang, 2009) which may have influence on firm performance. Understanding this may result in reducing the risk associated with the operations of a firm that may lead to costs reduction and ultimately enhances performance.

Over the years, weak corporate governance system has resulted in poor performance that causes several corporate failures especially in Nigerian, especially companies in the financial sector (Sanusi, 2010). As a consequence, the Nigerian Securities and Exchange Commission (SEC) has in 2011 revised the erstwhile corporate governance code of 2009, in order to strengthen its effectiveness in the publicly traded companies in Nigeria. Owing to this, there is a requirement for companies to establish a risk management committee structure in addition to their existing board committees, alongside to disclose information on their risk management practices through annual reports, for the reason to strengthen the effectiveness of the CG code and mitigate the risk of corporate failure by enhancing performance.

An inquiry into CG mechanisms and firm performance reveals that there is an absence of empirical evidence on the relationship between board attributes, risk management committee structure, and risk management practice and disclosure in Nigeria. There is, therefore, the need to investigate such relationship in Nigeria, a country which has different socioeconomic background, common law, company law, capital market, and compliance level of CG code from those of developed economies like the UK and US. Thus, this study extends prior studies on CG and firm performance by incorporating additional variables that include: risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meetings) and risk management practice and disclosure to

examine their relationship with the performance of listed financial service firms in Nigeria.

## **1.6 Significance of the Study**

It is expected that after the successful completion of this study, it will significantly contribute to both literature (empirical, theoretical, and methodological) and practice (management, relevant authorities, and the general public). The explanation to these are provided as the following:

### **1.6.1 Significance to Literature**

The significance of this study to literature comprises of empirical, theoretical, and methodological contributions. Empirically, various studies have been conducted to assess the relationship between corporate governance mechanisms and corporate performance in both developed and emerging economies, but end up in mixed and conflicting findings, and the like of such studies are inadequate in Nigerian economy especially in the financial service industry. The said studies are but not limited to Abdul-Qadir and Kwanbo (2012), Afrifa and Tauringana (2015), Al-Matari *et al.* (2014a), Arouri *et al.* (2014), Chechet Jnr. and Akanet (2013), Elyasiani and Zhang (2015), Erah *et al.* (2012), Ezugwu and Itodo (2014), Fauzi and Locke (2012), Gill *et al.* (2012), Gill and Obradovich (2012), Guest (2009), Hauser (2013), Joe Duke and Kankpang (2011), Liang *et al.* (2013), Marn and Romuald (2012), Mukolu and Blessing (2014), O'Connel and Cramer (2010), Onakoya *et al.* (2014), Vafeas (1999). Hence, the conduct of this

study will provide important findings which will help to boost the extent of corporate governance agenda, especially in developing economy like Nigeria.

Moreover, prior studies have concentrated on the relationship between board attributes and firm performance as previously exemplified. This study will contribute empirically by including additional variables like risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings) that may boost firm performance. Similarly, another important area that previous studies ignored is linking the relationship between risk management practices and disclosure and firm performance, as such, this will be another important contribution that this study will render to literature.

Additionally, the finding of this study is expected to be an added value to existing body of knowledge and will serve as a reference and a basis where further research on corporate governance mechanisms (board attribute, risk management structure, and risk management practices and disclosure) and company performance will be carried out especially on listed companies in Nigeria.

However, in terms of contribution to theory, this study links agency theory and resource dependence theory to corporate governance mechanisms represented by board attributes, risk management committee structure, and risk management practices and disclosure and firm performance. In determining the board monitoring function, some studies utilize agency theory and others use resource dependence theory at the expense of the other (Hill & Dalziel, 2003). This study will use agency theory and resource dependence theory to complement each other in order to assist in overcoming the

contemporary myopic issues surrounding both streams of research. Therefore, this will serve as a significant contribution to the application of multiple theories in corporate governance research agenda.

Equally, the study is significant in a methodological sense because it adapts methods used by previous studies in examining the like of the study in question, and an improvement is made to the previous methods by collecting an important data on risk management practice and disclosure via analysis of contents. Collection of data through this means has a great importance because both the provider of the data and one collecting the data does not have control or influence on such data, hence improving the richness of the expected results (Stemler, 2001).

### **1.6.2 Significance to Practice**

The expected significance of this study to practice encompasses policy makers, relevant authorities, and the general public. To policy makers, the study will in a long way provides the treasured information needed by the management of corporate entities to make appropriate decisions regarding the practice of corporate governance in their companies. Specifically, the management will know the relationship between each of the selected board attributes' (board size, board composition, board meetings, CEO tenure, board expertise) and performance of their firms. Moreover, the association between risk management committee structure (size, composition, meetings) with performance will be adequately known by the management of listed financial service firms in Nigeria. In the same line, the relationship between risk management practices and disclosure and performance of the sampled firms will be known, and this may help

management to make decisions regarding the effect of adequate disclosure of their activities.

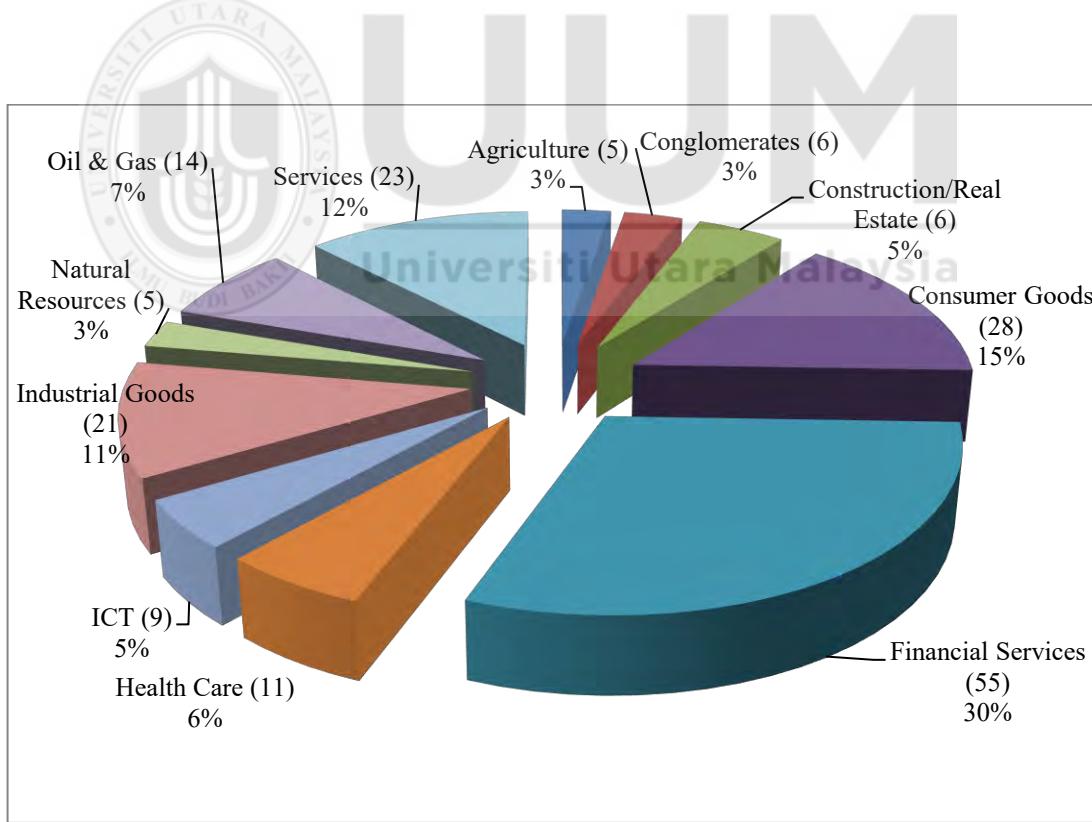
Equally important, relevant authorities (for instance, SEC and CBN) to the operations of financial service firms in Nigeria will be provided with important information about the effectiveness of board attributes, risk management committee structure, and risk management practices and disclosure in the Nigerian financial service sector. By this, the relevant authorities will know the extent of application of the NCCG 2011 by the financial service firms, which may be used as a basis of assessment.

Furthermore, the findings of this study will be a contribution to the general public, specifically investors and financial analysts. To financial analysts, they will use the findings of this study to assess the level of performance and level of corporate governance effectiveness of financial institutions in Nigeria. In addition, they will also be provided with information on the intensity of disclosure on risk management practices in the Nigerian financial service sector and how it is related to performance. This will serve as a basis for measuring the performance of a company in the financial sector and will serve as a yardstick for investment decisions by investors.

## **1.7 Scope of the Study**

This study concentrates on the relationship between corporate governance represented by board attributes (board size, board composition, board meetings, CEO tenure, and board expertise), risk management committee structure (size, composition, and meetings), risk management practices and disclosure and company performance (return

on assets, return on equity, and market-to-book-value ratio) of fifty-five (55) quoted financial service firms actively operating in the Nigerian Stock Exchange (NSE). The study covers a 5-years period spanning from year 2012-to-2016 because the previous period's financial report is usually submitted to the Securities and Exchange Commission (SEC) in Nigeria in the first quarter of the immediately subsequent period. Selection of firms in the financial industry is based on their role as financial intermediaries by supplying resources from the available stream to the shortfall sector within the economy. While the selection of the time period (2012 to 2016) is based on the fact that the NCCG for publicly traded companies in Nigeria was revised by the Securities and Exchange Commission in 2011, and its full implementation takes effect from 2012. The scope of the study is presented in the following figure as thus:



**Figure 1.0**

*Scope of the study out of quoted firms in NSE*

Source: Adapted from NSE (2017).

Figure 1.0 is showing the various sectors operating in the Nigerian Stock Exchange which amassed to eleven. The sectors range from healthcare having 11% from the total eleven sectors, information and communication technology (ICT) with 5%, industrial goods 11%, natural resources 14%, and oil and gas sector with 12%. While others are agricultural sector having 3%, conglomerates 3%, construction and real estate 5%, consumer goods 15%, and the largest is the financial service sector having 30%. Here, it can be seen that the scope of the study (that is financial service sector) dominates other sectors in the Nigerian Stock Exchange and it majorly contributes to the nation's economy.

## **1.8 Organization of the Thesis**

Chapter one encompasses the introduction of the study including, comprehensive explanation on the background of the study, statement of the research problem, research questions, research objectives, significance of the study, the scope of the study, and organization (structure) of the study. Whereas, the next chapter (chapter two) elaborates on the overview of Nigerian economy comprising of political and economic background, the structure of Nigerian financial system, regulatory agencies in the Nigerian financial system, institutional development in the Nigerian financial system, development of corporate governance, and regulations governing financial institutions in Nigeria. In addition, the chapter elaborates on the underpinning theories of the study, the concept of corporate performance, concept of corporate governance, and review of literature related to the study.

Chapter three discusses the research framework and methodology. The chapter specifically concentrates on framework direction and hypotheses development portraying the relationship between corporate governance represented by board attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings), risk management practices and disclosure and firm performance (return assets, return on equity, and market-to-book-value ratio). Moreover, the chapter provides the methodology in terms of research design, panel data, the population of the study, sample size, the method of data collection, operational definition and measurement of variables, and techniques of data analysis.

Chapter four presents the results of analysis and discussion thereupon. The results presented include descriptive statistics, correlational analysis, diagnostic tests, and multivariate regression analysis using Panel Corrected Standard Errors (PCSEs) with additional robustness test. Discussion of the results as well as the decision on the study hypothesis is also presented. Chapter five, which is the last chapter in this study, presents the summary of the study, implications of the study findings, limitations of the study, suggestions for further research, and conclusion.

## **1.9 Chapter Summary**

This chapter has discussed the introduction of the study specifically on the background of the research, statement of the research problem, research questions, research objectives, motivation for the study, the significance of the study, the scope of the study,

and organization (structure) of the research. The next chapter presents an overview of the Nigerian economy and literature review.



## CHAPTER TWO

### OVERVIEW OF THE NIGERIAN ECONOMY AND LITERATURE REVIEW

#### 2.1 Introduction

This chapter highlights information regarding Nigeria including the background of Nigeria, Nigerian political and economic overview, structure of the Nigerian financial system, the performance of financial institutions in Nigerian Stock Exchange (NSE), regulatory reforms in Nigerian financial sector, development of corporate governance in Nigeria, and regulations governing the practice of financial institutions. Moreover, the chapter review related underpinning theories, review literatures related to the concept of firm performance, types of firm performance and their measurements, concept of corporate governance, corporate governance mechanisms (board attributes including; board size, board composition, board meetings, CEO tenure, and board expertise), risk management committee (RMC) structures (RMC size, RMC composition, and RMC meetings), and risk management practices and disclosure. A summary of the chapter is also provided in the final section.

#### 2.2 Background of Nigeria

Nigeria, a country located in West Africa-north of the Gulf of Guinea, it is bordered on the north by Niger, northeast by Chad, west by the Republic of Benin, and on the east by Cameroon. Nigeria has a total land mass of 356,669 square miles (equivalent to 923,773 square kilometres). Features of land dramatically change in Nigeria, from rain forests, which are along the coast to savanna hills. This is about or more than 200 miles north of the coastline. Another 200 miles northward extended by the savanna spanning

the Niger and Benue coastlines. Mountains form the border between Nigerian from the northeast and Cameroon whiles the North West and Central part of Nigeria is composed of the Sahel-known as flat/semi-desert land (Douglas, 2004).

Nigeria is being ranked the 10th and largest nation in the world and largest nation in Africa has an estimated population of 177.5 million (World Bank, 2014). The country is being divided into six geopolitical zones namely; North West, North East, North Central, South East, South West and South-South. Four major ethnic groups out of 400 different ethnic groups and 450 languages dominate these geopolitical zones. The four major ethnic groups make up about 65 to 70% of the entire population. The group with the highest population is called Hausa/Fulani majorly Muslims, a combination of two ethnic groups located in northern Nigeria. The second is Yoruba located in western Nigeria and a minority among the four major ethnic groups is the Igbos from eastern Nigeria. There are 36 states in Nigeria with Abuja as the Federal Capital Territory (FCT). Figure 2.1 is a map showing states in Nigeria under the six geopolitical zones.



**Figure 2.1**

*Six Geo-Political Zones in Nigeria*

Prior to her independence on the 1st day of October 1960, Nigeria has passed through dramatic shifts in governance. In 1914, the Governor's advisory council noticed a change after six black Africans were introduced into its operation. A legislative council consisting of thirty-six Europeans and ten Africans (four of them elected) were empowered in 1922 to legislate for the south. However, in 1947, the scope of activities of the council's authority, was widened to the whole country (The Commonwealth Yearbook, 2015). From three zones of the country, north, west and east regional houses of assembly were set up by the 1947 Constitution with the house of chiefs in the northern protectorate.

After 1951 constitution has given balance and equal power to Nigerians, Nigeria became a federation in 1954, and Eastern and Western regions possess internal self-government in 1957 and Northern region in 1959. In December 1959, elections for the Federal House of Representatives brought in a fresh government. The new House of Representatives at its first meeting beseeched full sovereignty. From there, Nigerian independence was a birth on October 1, 1960 (The Commonwealth Yearbook, 2015).

### **2.2.1 The Political Overview of Nigeria**

After the British colonial rule of over half of a century, Nigeria gained her independence on 1 October 1960 led by the Northern People's Congress (NPC) in connection with the National Council of Nigerian Citizens (NCNC) (mostly Igbos) and became a federal republic in 1963. Late Sir Abubakar Tafawa Balewa became the first Prime Minister and Dr Nnamdi Azikiwe as the first President (non-executive) (The Commonwealth Yearbook, 2015; national encyclopedia, 2003). In 1966, the First Republic was nowhere to be found because it ended up with a military coup. In May 1967, Nigeria went in chaos due to the civil war that emanated from the declaration made by the Eastern Region that they seceded from Nigeria. The Eastern Region (the Igbos) declared self-independence and named it 'The Republic of Biafra'. Nevertheless, the federal government of Nigeria fiercely battled with the Biafrans that later surrendered in 1970.

In 1970 when the civil war ended, Major General Yakubu Gowon created a federal system, which consists of twelve states that replaced the four regions, and national reconciliation was emphasized. However, in July 1975, Brigadier Murtala Ramat Muhammad removed Gowon due to a military coup. Murtala was in turn, assassinated

in early 1976. General Olusegun Obasanjo succeeded as the next head of state. Obasanjo after developing a draft of a new constitution through the national Assembly paved the way for democracy to stay where elections were conducted in 1979 and second republic inaugurated under Alhaji Shehu Shagari (national encyclopedia, 2003).

Due to economic mismanagement and increased in corruption, Shagari was displaced on 31 December 1983 led by Major General Ibrahim Badomosi Babangida. A five-year plan to return to civil rule was been announced by Babangida in September 1987. Later elections were held on June 12, 1993, and Mashood Abiola, successful Yoruba business person was widely seen as the winner of the 1993 general elections, but Babangida led government annulled the election and named Chief Ernest Shonekan as interim head of state. General Sani Abacha who assumed power as the new military head of state overthrew Shonekan. A new dawn of democratic transition was created after the death of General Sani Abacha on 8 June 1998. Major General Abdulsalami Abubakar succeeded Abacha on 9 June 1998 after selected by the Provisional Ruling Council in a closed-door meeting. Abubakar reinstated democracy in Nigeria after Obasanjo- a former military head of state was elected president on February 27, 1999.

After a successful four years in democracy, Obasanjo was re-elected in 2003 under the platform of People's Democratic Party (PDP) with 61.9% of the total votes, against his opposition candidate, Major General Muhammadu Buhari of the All Nigeria People's Party (ANPP) with 32.2%. Moreover, the April 2007 presidential election was won by the ruling PDP's candidate, Alhaji Umaru Musa Yar'Adua with 70% of total votes cast against General Muhammadu Buhari of the ANPP with 18% and former vice president Alhaji Atiku Abubakar with 7%. After his death in Saudi Arabia on 5 May 2010, Vice-

President Goodluck Ebele Jonathan, who was later sworn in as the president on May 6, 2010 (The Commonwealth Yearbook, 2015), succeeded Yar'Adua. In April 2011, Jonathan, PDP's ruling party candidate, won the presidential election with 59% of the total votes cast and having above 25% of total votes in at least 24 states. The main opposition runner, General Muhammadu Buhari (now of CPC – Congress for Progressive Change), secured 32% of the total votes cast.

A new dawn and a turnaround in the Nigeria political transition occurred in the 2015 presidential elections. On March 28, 2015, General Muhammadu Buhari (now of All Progressive Congress – APC) secured 54% of the total votes cast, defeating the incumbent President, Goodluck Jonathan of the PDP having 45%. It was the first time in Nigeria's history to vote out an incumbent President. President Buhari was sworn in on 29th May 2015 with vice president Professor Yemi Osinbajo. President Buhari is to hold office for four years, that is subject to re-election for another four years. The maximum term of office of Nigeria's president is two terms of four years each.

### **2.2.2 The Economic Overview of Nigeria**

Colonialism has been a major feature of Nigerian economic history (Ekpo & Umoh, 2010). Britain initially gained control and management of Nigerian resources. The Nigerian economy after independence became more promising. They (authors) further state that before the oil boom era, agriculture has been the promising and major source of Nigeria's revenue. Nigeria has been the major exporter of agricultural products like groundnuts, cotton, cocoa and millet that contributes to about 63% to the nation's Gross Domestic Product (GDP) in 1960 to 3.1% GDP growth annually. During the oil boom

era around 1970 to 1978, the nation's economy witnessed a tremendous growth when the GDP grew positively by 6.2% annually.

Ekpo and Umoh (2010) added that the contribution of agriculture to the Nigerian GDP was unsatisfactory as it dropped down from 63% in 1960 to 34% in 1988 due to carelessness and neglect of agricultural sector. As a result, Nigeria became the major importer of basic food items in 1975. In addition, the period of structural adjustments and economic freedom from 1988 to 1997 was a remarkable one because the GDP positively responded to the economic adjustment policies. The GDP grew at an annual growth rate of 4%.

The National Bureau of Statistics (2013) reported that series of unfortunate economic and political events hinder economic growth in Nigerian. Nevertheless, the nation still plays a pivotal economic role in the globe, especially as a producer and exporter of crude oil. The economy faced a lot of challenges which affect the overall economic activity in the year 2012 (National Bureau of Statistics, 2013). The report further stresses that the downturn in economic activity's real growth rates has affected both the oil and non-oil sectors. In the oil sector, production was below expectation due to security challenges and floods. In the non-oil sector (majorly Wholesale and Retail Trade, and agriculture) was mostly affected by weaker consumer demands, floods and land degradation.

Based on 2012 economic data, real GDP indicates growth by 6.34 and 6.39% in the first and second quarter respectively. In addition, there was a slight difference in the rate of economic activity and the initial estimates of 6.17 and 6.28%. However, the revised growth rate was below those reported in the equivalent quarters of 2011 that is 6.96 and

7.5% respectively. In this effect, the economy declined by 0.62 and 1.11% in the first two-quarters of the year when compared to 2011 corresponding quarters (National Bureau of Statistics, 2013).

The Nigerian National Petroleum Corporation (NNPC) (2012) reports that oil production was projected at 2.37 million barrels per day at the first half of 2012 as against 2.48 million barrels per day in first half of 2011, but ended up producing 2.27 million barrels per day. The decline in crude oil production was due to recorded cases of oil theft and vandalism of oil pipelines in the oil producing areas. On the contrary, the non-oil sector was affected by flooding alongside declined in consumer demand (National Bureau of Statistics, 2013). Table 2.1 shows the sectoral growth summary for 2011 and 2012 economic year.

**Table 2.1:**

*Sectoral Growth Summary for 2011 and 2012*

Sectoral Growth (%)	2011				2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 <sup>f</sup>
<i>Agriculture</i>	5.31	5.7	5.76	5.68	4.37	4.21	3.89	3.83
<i>Solid Mineral</i>	12.9	11.85	12.43	12.85	11.65	11.72	12.61	12.68
<i>Crude Petroleum &amp; Natural Gas</i>	0.05	0.98	-0.26	-0.08	-2.32	-0.73	0.08	-0.17
<i>Manufacturing</i>	6.13	7.2	7.84	7.63	5.17	7.59	7.78	7.71
<i>Telecommunication &amp; Post</i>	32.14	34.1	35	36.39	34.06	29.38	31.57	32.5
<i>Finance &amp; Insurance</i>	4.07	4.37	4.04	3.42	3.57	5.01	4.08	3.47
<i>Wholesale and Retail Trade</i>	10.06	11.43	11.8	11.92	8.42	8.65	9.62	10.76
<i>Building and Construction</i>	13.19	11.98	10.88	12.09	13.28	12.73	11.52	12.6
<i>Hotel and Restaurants</i>	12.2	12.39	11.96	12.01	11.45	12.3	12.33	12.69
<i>Real Estate</i>	9.51	10.54	10.86	11.16	9.34	10.81	10.24	11.1
<i>Business and Other Services</i>	8.62	11.03	8.52	9.81	7.67	11.26	9.11	10.69
<i>Other sectors</i>	4.68	4.6	5.04	5.5	4.97	4.84	5.25	5.78
<b>Real Growth at Basic Prices</b>	<b>6.96</b>	<b>7.5</b>	<b>7.37</b>	<b>7.76</b>	<b>6.34</b>	<b>6.39</b>	<b>6.48</b>	<b>7.09</b>
<b>Non - Oil Growth</b>	<b>8.52</b>	<b>8.72</b>	<b>8.76</b>	<b>9.1</b>	<b>8.14</b>	<b>7.63</b>	<b>7.55</b>	<b>8.23</b>

Source: National Bureau of Statistics (2013).

However, Nigerian economy has enjoyed better economic growth in 2015 where the annual GDP increases by about 7% compared to 6.3% in 2014. The main driver of the economic growth is non-oil sector, with agriculture and manufacturing contributing about 21% and 9% respectively, services contribute about 57%. Thus, the economy is diversifying and transforming to more of services oriented through wholesale trade and retail, information communication and real estate. In the same vein, the 2014 real GDP growth which is recorded to be 6.3% is an increased from 5.4% of 2013. A major driver for growth is the non-oil sector, specifically manufacturing, services, agriculture, and trade. Growth in non-oil sector positioned at 7% in 2014 in contrast to 8.4% in 2013 while growth in oil sector turns down by 1.2%. The real growth rate in agriculture increased from 2.9% in 2013 to 4.6% in 2014 (Barungi, Ogunyele & Zamba, 2015).

Recently, World Bank (2014) reported that Nigeria's GDP at market price stood at \$568.5 billion. Just like other oil exporting countries, Nigeria is facing a dwindling movement in oil revenues resulting from a heavy fall in global oil prices. In this case, the price of Bonny Light is seen to have declined in June 2014 from \$118 per barrel (pb) to about \$50 pb in 1st Quarter of 2015, while price falls below \$45 pb in April 2016 (Watts, 2016; Barungi et al., 2015). This decline in oil prices is negatively hindering the economic growth possibilities of Nigeria.

Considering inflation, Table 2.2 shows that inflation rate depicts a downward trend during the year 2011, despite various economic challenges witnessed by the country like insecurity, floods, and removal of fuel subsidy (Barungi et al., 2015). From 12.1% recorded in January (year-on-year), the headline inflation rate stretches to 12.8% in March before dropping down to 9.4% and 9.3% in July and August. The rate further

rose to 10.3% in September and increases to 10.5% in October and November before slightly falling to 10.3% in December. As a result, average headline inflation rate for 2011 stood at 10.85%. As at January 2012, the inflation rate skyrocketed to 12.6% and declined 11.9% in February. The inflation rate reaches its highest in April and June by recording 12.9% respectively. It later drops down to 11.7% for August and October. The year ended with 12% inflation rate in December, with an average rate of 12.24%.

**Table 2.2:**

*Inflation Rates Summary from 2011 to 2017 (7 Months)*

Year	2011	2012	2013	2014	2015	2016	2017
January	12.10	12.60	9.00	8.00	8.20	9.62	18.72
February	11.10	11.90	9.50	7.70	8.40	11.38	17.78
March	12.80	12.10	8.60	7.80	8.50	12.77	17.26
April	11.30	12.90	9.10	7.90	8.70	13.72	17.24
May	12.40	12.70	9.00	8.00	9.00	15.58	16.25
June	10.20	12.90	8.40	8.20	9.20	16.48	16.10
July	9.40	12.80	8.70	8.30	9.20	17.13	16.05
August	9.30	11.70	8.20	8.50	9.30	17.61	N/A
September	10.30	11.30	8.00	8.30	9.40	17.85	N/A
October	10.50	11.70	7.80	8.10	9.30	18.33	N/A
November	10.50	12.30	7.90	7.90	9.37	18.48	N/A
December	10.30	12.00	8.00	8.00	9.55	18.55	N/A
Average	10.850	12.242	8.517	8.058	9.010	15.625	17.057

Note: NA=Not Available

Source: Author's Analysis from Central Bank of Nigeria, CBN (2017) data

However, the year 2013 has been a favorable economic period for Nigeria because, in January, the inflation rate declines to 9% compared to December 2012 (12%). The rate drops to its lowest in October by recording 7.8% (year-on-year). The rate continues to fluctuate in that year between 7% and 8% while the year ends with 8% in December and the average inflation rate for the year is 8.5%. In 2014, the inflation rate in January is 8% and drops down to its minimum in February to 7.7%. Like 2013, the rate fluctuates between 7% and 8% throughout the year, while December has 8% and the average for the year is 8.05%. On the other hand, starts with 8.2% and end at its highest with 9.55%, while the overall inflation rate average for the year is 9.01%. The last year, which is 2016, has inflation records for two months only because as at the reporting period, only January and February inflation rates records are available. In January 2016, the rate is 9.62% and significantly increases to 11.38% in February showing an increase of 1.76% (month-on-month). However, the highest inflation rate is in the year 2016 is in the month of December with 18.55%. There was also a persistent increase from December 2016 to January 2017, where the inflation rate stood at 18.74%, and later on, moves at a decreasing rate to 16.05% in July 2017 due to various agricultural outputs by the nation's populace.

Furthermore, the currency used by Nigeria is denominated in notes and coins called Naira (N) and Kobo (K). The highest denomination of the Nigerian currency is N1000 followed by N 500, N 200, N100, N50, N20, N10 and N5. Moreover, Naira notes and coins are printed/minted by the Nigerian Security Printing and Minting Plc (NSPM) with other overseas printing and minting companies and issued by the Central Bank of Nigeria (CBN). At the currency printing works of the NSPM Plc, quality is being controlled carefully throughout each process of currency making. This warranties that

every note issued meet the required standard. The CBN maintains an office called ‘Mint Inspectorate’ in the premises of the NSPM Plc to maintain security and quality of Naira notes and coins.

The CBN issued currency to Deposit Money Banks (DMBs) through its branches, and old notes retrieved through the same medium. Currency deposited by the banks are processed and sorted to fit and unfit notes in line with the clean note policy. The clean notes are re-issued while the dirty notes are usually destroyed (CBN, 2015).

### **2.3 Structure of Nigerian Financial System**

Central Bank of Nigeria (1993) cited in Maduka and Onwuka (2013) defines the financial system as the set of rules and regulations and the summation of institutions, financial arrangements, agents that intermingle with one another to promote economic growth and development of a country. Furthermore, International Monetary Fund, IMF (2006) asserts that financial system comprises of institutional units and markets that interrelate in a broad manner, for the intention of mobilizing resources for investments and providing services together with payment systems, primarily to finance commercial activities.

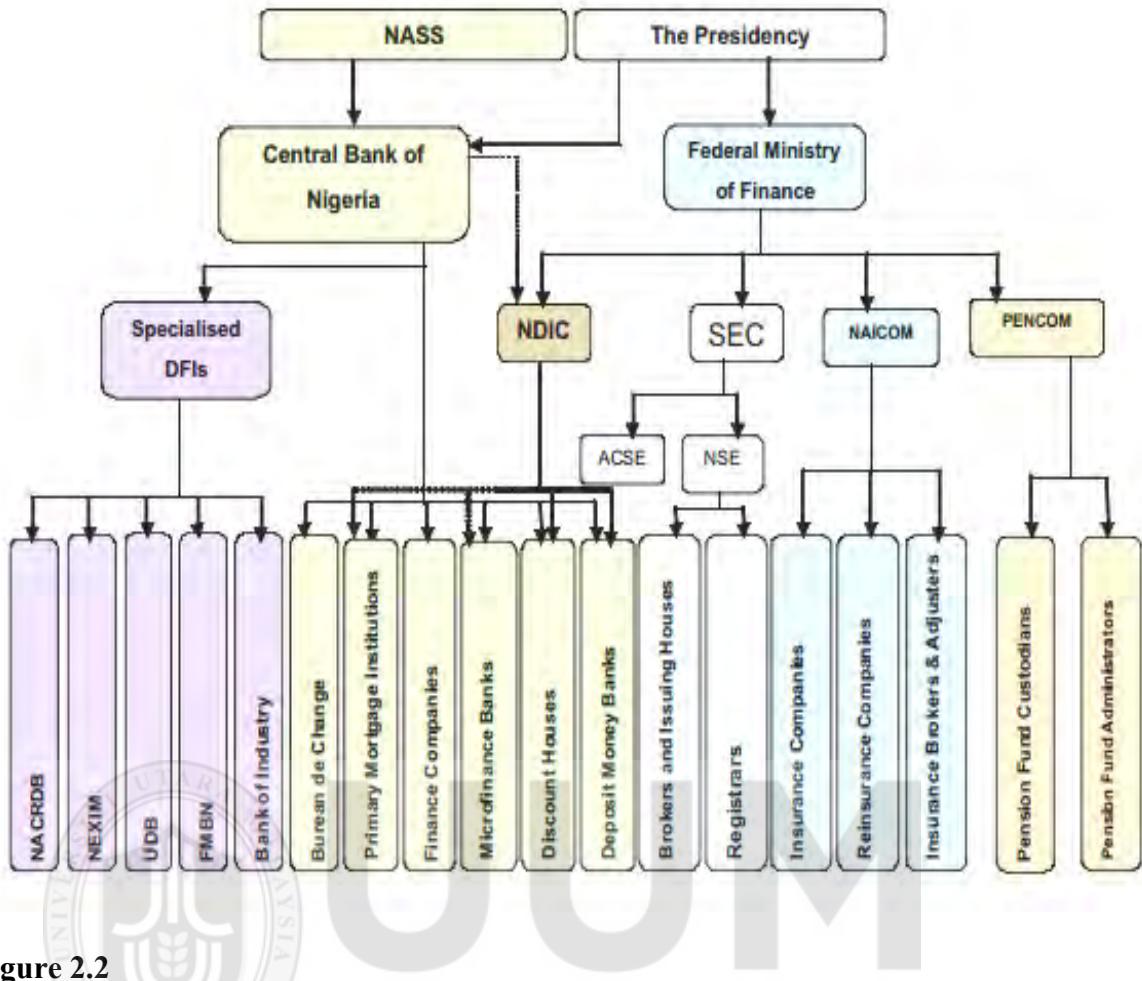
The financial system is a key player in the mobilization as well as the distribution of savings for productive reasons (Maduka & Onwuka, 2013). It also helps in lessening the risks distracting firms and businesses in their manufacturing and service processes, enhancement of collective diversification and protecting the economy from external distress (Nzotta & Okereke, 2009). In the same part, the system offers connections

between different sectors of the economy and promotes a significance level of speciality and economies of scale.

The Nigerian Financial System consists of several institutions, instruments, and regulations (Maduka & Onwuka, 2013). The Nigerian financial system consists of both formal and informal sub-sectors. The formal sub-sector encompasses the regulatory authorities, money markets, capital markets, foreign exchange markets, brokerage firms, insurance companies deposit money banks (DMBs), development finance as well as other financial institutions (OFIs). While the informal sub-sector involves community-based organizations like micro finance institutions (MFIs), financial cooperatives, rotary savings and credit associations, self-help groups and related institutions (CBN, 2010).

Figure 2.2 shows the structure of Nigerian Financial system.





**Figure 2.2**

*Structure of the Nigerian Financial System*

Source: CBN, (2010)

The acronyms in Figure 2.2 are explained as thus:

NASS	-	National Assembly
DFIs	-	Development Financial Institutions
NDIC	-	Nigeria Deposit Insurance Corporation
ACSE	-	Abuja Commodity and Security Exchange
NSE	-	Nigerian Stock Exchange
SEC	-	Securities and Exchange Commission
NAICOM	-	National Insurance Commission
PENCOM	-	National Pension Commission

NACRDB	-	Nigeria Agricultural Cooperative and Rural Development Bank
NEXIM	-	Nigeria Export-Import Bank
UDB	-	Urban Development Bank
FMBN	-	Federal Mortgage Bank of Nigeria

## **2.4 Regulatory Agencies in the Nigerian Financial Service Industry (NFSI)**

In an effort to facilitate a framework for the co-ordination of regulatory and supervisory activities in the Nigerian financial sector, the CBN in April 2014 establishes a committee called ‘The Financial Services Coordinating Committee (FSCC). The establishment of the committee is to address more effectively, via consultations and regular inter-agency meetings, issues of common concern to regulatory and supervisory bodies (CBN, 2016b). Moreover, on May 27, 1994, the name of the committee later transformed to Financial Services Regulation Coordinating Committee (FSRCC). The legal status of the committee granted by the 1998 amendment to section 39 of the CBN Act of 1991 and formally inaugurated by the CBN Governor in May 1999.

Additionally, the committee (FSRCC) was reconstituted to achieve objectives that include (1) coordinated and ensure the supervision of financial institutions, (2) ensure the reduction of opportunities in arbitrage usually created by different existing supervisory and regulatory standards between supervisory authorities in the Nigerian financial services sector (FSRCC, 2016). Other objectives of the committee (FSRCC) are to discuss on problems encountered by a member in the course of relating with another financial institution and to remove any gap of information faced by some regulatory agencies in their relationships with other members of financial institutions.

The agency members of Financial Services Regulation Coordinating Committee (FSRCC) are the Central Bank of Nigeria, Corporate Affairs Commission (CAC), Federal Ministry of Finance (FMF), National Insurance Commission (NAICOM). Among the agencies also are the National Pension Commission, Nigerian Deposit Insurance Commission, Securities and Exchange Commission (SEC), Abuja Securities and Commodity Exchange (ASCE) Plc, Nigerian Stock Exchange (NSE) and Federal Inland Revenue Service (FIRS).

#### **2.4.1 The Central Bank of Nigeria (CBN)**

The Central Bank of Nigeria is the apex authority in regulating the financial system. It was established by the CBN Act of 1958. The CBN Act of 1958 (as amended) and the Banking Decree of 1969 (as amended) forms the legal framework in which the Central Bank functions and control banks. In 1991, the Banks and Other Financial Institutions Decree (BOFID) 24 and 25 repealed the Banking Decree of 1969 which extends the power of the CBN to manage and control other financial institutions. The bank primary role is to promote monetary stability and ensure strong financial system and to act as financial adviser to the Federal Government. The regulatory focus of CBN is on deposit money banks (DMBs) alongside other financial institutions, with bureaux-de-change, primary mortgage institutions, microfinance institutions, discount houses, development finance institutions, and finance companies (CBN, 2010).

Ordinarily, the supervisory role of the CBN is structured into four (4) different departments namely; Financial Policy and Regulation Department, Banking Supervision Department, Other Financial Institutions Supervision Department, and

Consumer Protection Department (CBN, 2016). The Financial Policy and Regulation department is saddled with the responsibility of establishing and implementing policies and regulations that will enhance financial system stability. The department also provides license and give approvals for banks and other financial institutions. However, the Banking Supervision Department supervises Deposit Money Banks (DMBs) and Discount Houses, whereas, Other Financial Institutions Supervision Department carries out the supervision of other financial institutions. The Consumer Protection Department establishes and implements an effective consumer protection framework that promotes consumer confidence in the Nigerian financial system.

#### **2.4.2 The Corporate Affairs Commission (CAC)**

The Corporate Affairs Commission (CAC) was initiated by the Nigerian Company law known as the Companies and Allied Matters Act (CAMA) of 1990. Before the establishment of CAMA in 1990, the Companies Act of 1968 was the law that regulates formation and operation of companies in Nigeria (CAMA, 1990). Due to the various challenges related to registration, instruction, and supervision of companies operating in Nigeria, the Nigerian Law Reform Commission promulgates CAMA in 1990 in a way to strengthen the rules on registration and operation of companies.

Companies and Allied Matters Act, CAMA (1990) reports that the commission (CAC) is responsible for the registration of companies, Business names registration, incorporation of associations, bodies, Trustee of committees, and other regulations that may arise from time to time. The commission is also responsible for management, control and winding up of companies, instituting and maintenance of a company's

records and offices in every state of Nigeria. The commission has the power to conduct or organize an investigation at the request of shareholders or public into the dealings of any company operating in Nigeria and can perform several functions specified by any enactment or Act.

#### **2.4.3 The Federal Ministry of Finance (FMF)**

The Federal Ministry of Finance offers advice to the Federal Government on fiscal matters and cooperates with the Central Bank of Nigeria on monetary affairs (Maduka & Onwuka, 2013: CBN, 2010). All budgets of ministries, departments and agencies in Nigeria are passed through the Federal Ministry of Finance before going to the presidency as budget appropriation bill. The mission of Federal Ministry of Finance is: ‘To manage the Nation’s finances in an open, transparent, accountable and efficient manner that delivers on the country’s development priorities’.

The ministry's (FMF) objectives are to ensure a stable and vibrant economy and a better standard of living, long-term treasury equilibrium, cost-effective and proficient tax environment, accountable and performance oriented administration of state finances (FMF, 2016). The ministry's other objectives are to enable translucent government operations and successful and well-arranged organizational structure, employment of high-quality staff to function in a conducive working environment and to deliver a reliable service by heavily emphasizing on professionalism.

In order to achieve its objectives, the ministry (FMF) establish the following departments: Economic Research and Policy Management, Finance and Account

General Services, Graduate Internship Scheme, Home Finance, Human Resource Management, International Economic Relations, Reforms Coordination and Services Improvement, and Technical Services.

#### **2.4.4 The National Insurance Commission (NAICOM)**

The National Insurance Commission (NAICOM) is an agency of the Federal Government of Nigeria by statute to control and oversee the Nigerian insurance industry. The powers of the commission are derived from the NAICOM Act of 1997 and the insurance Act of 2003. The Commission (NAICOM) is responsible for effectual administration, regulation, supervision and control of insurance businesses in Nigeria. Its main function is the established principles of the operation of the insurance business and safeguarding insurance policyholders (CBN, 2010). Accordingly, organizations that fall under the regulatory supervision of National Insurance Commission in Nigeria are Insurance Brokers, Insurance/Reinsurance firms, and Loss Adjusters and Agents.

#### **2.4.5 The National Pension Commission (PENCOM)**

The National Pension Commission (PENCOM) is the regulatory agency responsible for the oversight of fund custodians, alongside pension administrators in Nigeria (CBN, 2010). The Pension Reform Act No.2, of 2004, governed the activities of National Pension Commission. The objective of the 2004 pension scheme is to ensure that all individuals that work in either private or public service sector (federal government workers) receive their retirement entitlements as and when due as stated by PENCOM (2016). The scheme is also to assist extravagant individuals by making sure that they

save in order to provide for ‘rainy days’ (that is during their old ages). As another objective of the commission, it is to develop a standard set of rules and regulations for the management and payments of retirement benefits for workers in the private sector, Federal Capital Territory (FCT), and Public Service of the Federation.

In July 2014, the Nigerian President signed a Pension Reform Bill which becomes an Act (Pension Reform Act, 2014) that repeals the Pension Reform Act No.2 of 2004. The Pension Reform Act, 2014 continues to govern and regulate the administration of the uniform contributory pension scheme for both the public and private sectors in Nigeria, unlike the erstwhile scheme that has unequal contribution among the contributors.

#### **2.4.6 The Nigerian Deposit Insurance Commission (NDIC)**

The Nigerian Deposit Insurance Corporation (NDIC) harmonizes the supervisory and regulatory function of the Central Bank of Nigeria as opining by CBN (2010). The NDIC is independent of the CBN and reports to the Federal Ministry of Finance (FMF). NDIC's primary role is the insurance of depositors' money in Deposit Money Banks (DMBs) and additional insured financial institutions. It is saddled with the responsibility to liquidate distressed banks and supervises Deposit Money Banks and other insured institutions in concurrence with CBN.

Board of the Central Bank of Nigeria through it committee's report established the commission (NDIC) in 1983 to examine the operations of the Nigerian banking system (NDIC, 2016). The report of the Committee suggests the instituting of a Deposit Protection Fund (DPF). Consequently, after the promulgation of Decree No. 22 of 1988,

the Nigerian Deposit Insurance Commission was created to replace Deposit Protection Fund. Hence, the extraordinary increase of banks operating in Nigeria from 40 to 120 (the period from 1986 to 1992) that leads to competition increase among banks, inadequate work force, and people of doubtful integrity been owners and managers of banks (NDIC, 2016). The mission of the National Deposit Insurance Commission (NDIC) is, To protect depositors and contribute to the stability of the financial system through effective supervision of insured institutions, provision of financial/technical assistance to eligible insured institutions, prompt payment of guaranteed sums and orderly resolution of failed insured financial institutions.

#### **2.4.7 The Securities and Exchange Commission (SEC)**

The Securities and Exchange Commission (SEC) is the highest authority that regulates operations in the Nigerian Capital Market (CBN, 2010). The powers, regulations, and supervision by the Securities and Exchange Commission are been controlled and monitored by the Federal Ministry of Finance (FMF). The commission (SEC) was established by the SEC Act of 1979 which was later strengthened by Securities and Exchange Decrees of 1988. The commission (SEC) endorses and controls mergers and acquisitions and approves the institution of unit trusts. The commission (SEC) also upholds surveillance over the financial market to improve efficiency. The SEC Act of 1979 has empowered the commission to regulate the capital market with the aim to protect investors and develop the capital market to promote the efficiency of its allocation and ensure an economy led by the private sector.

#### **2.4.8 The Abuja Securities and Commodity Exchange (ASCE) Plc.**

Apart from the Nigerian Stock Exchange (NSE), the Abuja Securities and Commodity Exchange (ASCE) is the other between the two existing stock exchanges in Nigeria. It was established in 1998 and located in Abuja, the Federal Capital Territory (FCT) (ASCE, 2016). The Exchange (ASCE) engages in trading of commodities like Millet, Sorghum, Maize (Corn), and Cocoa, Coffee, Soybean, Melon, Cowpea and other agricultural products. The Exchange (ASCE) does not engage in trading of securities like equity, debts and derivatives, as it is the function of the Nigerian Stock Exchange.

The establishment of Abuja Securities and Commodity Exchange may give farmers or operators in the agricultural sector the opportunity sell their products in a standard market that attracts the interest of various investors. This may also help to enhance agricultural production that will boost government revenue and redirect Nigerian economy from oil-based to agricultural based since agriculture has been the major source of government revenues before the oil boom era in the 1970s.

#### **2.4.9 The Nigerian Stock Exchange (NSE)**

Olusegun, Oluwatoyin, and Fagbeminiyi (2011) report that the Nigerian Stock Exchange (NSE) was established in 1960, and licensed under ISA- Investment and Securities Act that is regulated by the Securities and Exchange Commission (NSE, 2016). Oulsegun *et al.*, (2011) further stressed that the NSE was before called the Lagos Stock Exchange (LSE) and later transformed to Nigerian Stock Exchange in 1977. Hitherto, the head office of the NSE was in Lagos with branches across the Federation

located in big cities and Abuja inclusive. The Exchange (NSE) started operations with 19 listed securities. Currently, there are about 200 listed equities and the All Share Index (ASI) and Market Capitalization stood at 24, 850.11 basis points and N8.548 trillion USD equivalent (\$4.34b) as at April 22, 2016 (NSE, 2016).

Moreover, the Exchange (NSE) offers various services involving listing and trading, market data solution, licensing and additional information technology (IT) among others. The Exchange belongs to several international and regional organizations in order to adopt a high level of international standards and to promote the establishment and incorporation of global best practices in all its activities (NSE, 2016). The membership of the Exchange is in the following: (1) International Organization of Securities Commission (IOSCO), (2) Sustainable Stock Exchanges (SSE) Initiatives, (3) the World Federation of Exchanges (WFE), (4) Inter-market Surveillance Group (ISG), and the SIIA's Financial Information Services Division (FISD).

#### **2.4.10 Federal Inland Revenue Service (FIRS)**

The Federal Inland Revenue Service begins as an arm of colonial tax administration with the name ‘Inland Revenue Department of Anglophone West-Africa (Ghana, Gambia and Sierra Leone)’ (FIRS, 2016). The Board of Inland Revenue was created in 1958 under the Income Tax Ordinance, 1958. Following several transformations between 1961 and 1993, the Federal Inland Revenue Service got its self-sufficiency through the surfacing of FIRS Act 13 of 2007. The FIRS is an operating segment of the Federal Board of Inland Revenue (FBIR). The Act serves as a collection of powers, management, tax administration, financial provisions, and other provisions governing

the operation and management of the FIRS. The Service (FIRS) is responsible for assessing, collection and accounting for different tax incomes to the federal government (FIRS, 2016).

## **2.5 Institutional Developments in the Nigerian Financial Sector**

The growth of the Nigerian banking system after consolidation period (the post year 2004) and the failure of the supervisors and regulators to initiate appropriate capabilities to supervise the system generate risk to the system, which caused a significant setback to both supervisors and other stakeholders. Furthermore, other factors like a significant failure in corporate governance at banks, macroeconomic instability, enforcement and irregular supervision were responsible for ensuring delicate financial system (CBN, 2010). Due to the factors that make the Nigerian financial system susceptible, the CBN in 2009 intervenes by implementing some initiatives to strengthen stability in the financial system. These initiatives are but not limited to the following:

- (1) Establishment of the Financial Stability Committee (FSC)
- (2) Establishment of the Asset Management Corporation of Nigeria (AMCON)
- (3) Review of supervisory procedures and methodology
- (4) Restructuring of the Financial Sector Surveillance Directorate (FSSD)
- (5) Adoption of a common year-end for Banks
- (6) Renewed collaboration with other regulators
- (7) Review of Code of Corporate Governance (CCG) for Banks
- (8) Establishment of an N300 billion (\$2.044 billion) Power Development Fund in support of Small and Medium Enterprises (SMEs)

- (9) Establishment of an N200 billion (\$1.363 billion) Commercial Agriculture Credit Scheme (CACS) by the CBN, collaboration with the Federal Ministry of Agriculture and Water Resources (FMA & WR)
- (10) Establishment of an N200 billion (\$1.363 billion) refinancing and restructuring of the manufacturing sector loan portfolio

Whereas other supportive mechanisms of financial stability initiated by the Federal Government (FG) are:

- (1) Enactment of Nigerian Oil and Gas Industry Content Development Act 2010 (the “Local Content Act”)
- (2) Federal Government’s amnesty program in the Niger Delta region (a region affected by militancy engaged in oil pipelines vandalism and kidnapping of foreign company’s oil workers for ransom); and
- (3) Creation of a Ministry for the development of the Niger Delta

### **2.5.1 Key Challenges in the Nigerian Financial System**

The Central Bank of Nigeria (2010) reports that there exist some factors which collectively threatened the Nigerian financial system and hamper growth in 2008 and 2009. However, slight recovery was witnessed in the first half of the year 2010 as doubts about the feasibility of the global economy, which had been wrecked by the force of the global financial crisis, eased. Furthermore, the effect of several policy procedures implemented by government and regulators to calm the system has yield positive results.

The major challenges in Nigerian financial system as states by CBN include the following:

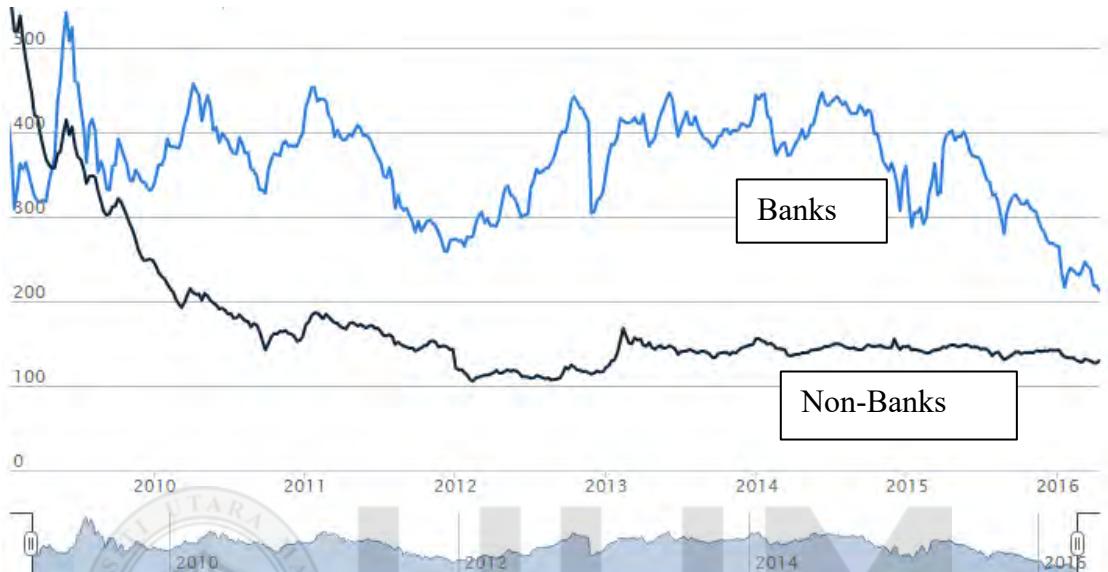
Volatile and reversible capital inflows that characterized bank consolidation exercise of 2005;

- (1) Failures in corporate governance in banks and other financial institutions
- (2) Major weaknesses in the business environment.
- (3) Inadequate disclosure and transparency in financial reporting.
- (4) Uneven supervision and enforcement.
- (5) Engagement in multiple financial activities that increased the complexity of operations; and
- (6) Inadequate risk management frameworks for identifying, measuring and controlling the risks associated with the activities of deposit money banks (DMBs) and other financial institutions.

### **2.5.2 Financial Institutions' Performance in the Nigerian Stock Exchange (NSE)**

Financial institutions in the Nigerian Stock Exchange has witnessed dramatic shift over the period. Figure 2.3 depicts that performance of listed financial institutions in Nigeria has dwindled through hard times. Albeit, they have a favourable start in 2010, but performance declines in 2011. Subsequently, performance continues to stumble in 2011 and drastically declines in 2012 till early 2013. From 2013 through 2014, there has been a favourable increase in performance, but this achievement fails to reinstate at the end of 2014. At the beginning of 2015, performance has shown a reasonable increase but

fails severely amid 2015 till early 2016. This assessment is diagrammatically depicted in Figure 2.3 as thus:



**Figure 2.3**

*Performance of Listed Financial Service Firms in NSE Market*

Source: NSE, (2017).

## 2.6 Development of Corporate Governance (CG) in Nigeria

The concept of Corporate Governance (CG) existed from medieval days. Because during the ancient times, the tribal commune supervises activities of communal tribes and the supervision extends to other individual members to guarantee the conformity of tribal norms by individual members (Lai & Bello, 2012). This later transformed into farmers' community that gave rise to global trading institutions in the post crises era. This leads to the formation of different regulatory bodies and regulations by the British Government who is the strongest trading country. The regulatory bodies include Bank

of England (BOE) and Joint Stock Companies (JSC), which are to oversee trading activities based on effectiveness, efficiency, stakeholders' contentment, and accountability (Kukure, 2006).

Crawford (2007) and Afolabi (2015) reported that issues evolving corporate governance have been the theme of significant global debate since the 1970s. There have been reforms of corporate governance in both developing and developed nations. This is due to: (1) the significant increase in demand by corporate owners (Shareholders) to maximize their wealth and exercise their ownership right, and (2) signal of retrenching corporations Chief Executive Officers that include Kodak, Honeywell, and IBM by their board of directors. In addition to this, the neglect and purposeful unethical action of the corporate board of directors and top executives has led to the collapse of giant companies like Enron and WorldCom, which attracts the attention of various corporate stakeholders and necessitate their interests in Code of Corporate Governance. For this reason, Sarbanes-Oxley Act of 2002 is developed (Benjamin, 2009; Fallatah & Dickson, 2012).

Additionally, the Asian financial crisis in 1997 has affected many companies in East Asia like Thailand and Malaysia (for instance, Renong, Perwaja Steel, and Malaysian Airline System). Due to the 1997 Asian economic crisis, the Malaysian government has embarked on intensifying corporate governance best practices and ensures its implementation and reporting in all listed companies in 2000. The supervisory authorities concerned in regulating and controlling the Malaysian capital market include Companies Commission of Malaysia, Securities Commission, Bursa Malaysia (Stock

Exchange), and Bank Negara Malaysia (Central Bank) (Abdul Rahman & Mohamed, 2006; Yatim, 2010).

In Nigeria, because of persistent distress in the banking industry, inadequate supervision by authorities, carelessness amongst the directors and managers, and poor performance led to the issue of first Code of CG for banks and non-banks financial institutions in the 4th quarter of 2003 by the Bankers' Committee (Demaki, 2013; Mmadu, 2013). Nevertheless, the NCCG is surrounded by less impact and weaknesses, as the group of Banks' Chief Executive Officers (CEOs) issued it. To have improved corporate governance in Nigeria, the Corporate Affairs Commission (CAC) through the Securities and Exchange Commission (SEC) issued the Code of Best Practices (CBP) on CG in 2003 for listed or incorporated firms (Adelegan, 2009; Afolabi, 2015).

Furthermore, at the end of 2003, Nigerian-banking industry was in distress because of poor corporate governance practice that results from weak internal control systems, overrule of internal control measures, poor performance, excessive risk taking, an absence of risk management processes, and override of authority limit among others. This is in consensus with the report by SEC in 2004, which states that the Nigerian corporate governance ineffectively practices because only less than 50% of the listed firms in Nigeria observe corporate governance practice (Mmadu, 2013). This led to the banks' consolidation exercise in 2005 that require banks to have minimum capitalization base of N25b (\$187.5m), which slashed Nigerian Banks from 89 to 24. In regards to this, the Central Bank of Nigeria issued a new Code of Corporate Governance for banks and non-banks financial institutions in 2006.

It is commonly believed that poor corporate governance has led to corporate failures in Nigeria as earlier noted. In order to have enhanced corporate governance, SEC in September 2008, launched a National Committee headed by Mr. Mahmoud, M. B. to review the 2003 Code of Corporate Governance for listed companies. The Committee was permitted to identify flaws and constraints in the 2003 code and to identify ways of enhancing it, boost greater compliance, and for linking the code with international best practice. This gives birth to the SEC 2009 code of CG. Therefore, the board of SEC believes that the new Code of CG will guarantee the highest standards of accountability, transparency and good governance in firms without negative effect to their operations and innovation.

Moreover, SEC reviews the 2009 Code of CG for public quoted companies in 2011 due to the 2008 global financial crisis that affects both developed and emerging economies and noncompliance with standard corporate governance practice in the Nigerian Stock Exchange (NSE) (SEC, 2012). In this effect, the Central Bank of Nigeria in 2014 issued a new Code of Best Practice on Code of CG for Banks and Non-Banks Financial Institutions. The new code has provided a clear guideline on every aspect of corporate governance and is expected to strengthen corporate governance for financial institutions, most especially in the areas of board structure (nonexecutive directors' compensation, directors' remuneration policy, names of chairmen and members of each committee etc.) and risk management practice, compliance and reporting (same as the NCCG, 2011) (CBN, 2006 & 2014). Nonetheless, the CBN Code of CG and the SEC Code of CG are in no any circumstance conflicting each other because they are designed based on the Companies and Allied Matters Act of 1990 (The Nigerian Company Law) and their requirements are similar.

## **2.7 Regulations Governing Financial Institutions Practice in Nigeria**

There are available regulations governing the activities of financial institutions in Nigeria that involve the company law and the code of CG. Even though the regulations are for general companies, but they significantly assist in regulating the activities of Nigerian financial institutions since they are also incorporated companies operating in the capital market (NSE).

### **2.7.1 The Company Law**

Afolabi (2015) states that in Nigeria, there exists a legal framework regulating the registration and operation of companies known as Companies and Allied Matters Act (CAMA) of 1990 (formerly, Companies and Allied Matters Decree, 1989) derived from English (British) Companies Act of 1862, later U.K Companies Act 1948, which is the genesis of modern company law. Olakanmi (2008) report that in 1922, the Companies Ordinance of 1912 and 1917 were consolidated and re-enacted with some amendments as the Companies Ordinance 1922. This became Cap.38 of the laws of Nigeria 1948 edition and Cap.37 of the laws of Nigeria 1958 edition. In 1963, it was re-designated Companies Act and continued to be the law applicable to the whole country until its repeal in 1968.

Olakanmi (2008) further stressed that the Companies Decree of 1968 came into being because Cap.37 of the laws of Nigeria 1958 was inadequate and could no longer cope with the growth of Nigerian economic activities. Subsequently, it was felt that a developing country like Nigeria needed modern companies' legislation to facilitate

business and give greater protection to investors and creditors. In this effect, the Companies Act of 1968 is remarkable because it made provisions for accounts and encouraged greater accountability and enhances effective participation of shareholders in the affairs of the company.

Due to the significant growth witnessed by the Nigerian Economy further exhibits the need for more vibrant, systematic and comprehensive laws not rooted in the antiquated U.K. Companies Act 1948. The Attorney-General directed the Nigerian Law Reform Commission in 1987. This Report was considered by the Ministry of Justice and promulgated the draft Decrees into law as the Companies and Allied Matters Decree 1990 (Olakanmi, 2008). Nigerian company law has made provisions regarding directors' duties, appointment, removal remuneration, and proceedings (meetings and resolutions) under sections 244-287.

Nonetheless, Section 246 of the law (CAMA) requires that registered companies in Nigeria must have at least two (2) directors and that a company may appoint a director of any age. The Act provides that a person who is been appointed by a public company when He/She is 70 years old or more must be disclosed to members in the general meeting. More so, the Act states that certain persons (a person under 18 years of age, lunatic or person of unsound mind, and insolvent, bankrupt or fraudulent persons) from appointment as a director.

The company law (CAMA) in Nigeria governs the registration of companies through the Corporate Affairs Commission (CAC), by providing guidelines on incorporation documents, types of companies, registration of company name, company's liability,

membership of a company, promoters and their duties, generating meetings, shares, prospectus, directors, financial statement reporting and auditing, dividends, and company winding up. Therefore, one can be saying that these provisions are also affecting the activities of Nigerian financial institutions since they are incorporated under the company law (CAMA).

### **2.7.2 The Nigerian Code of Corporate Governance (NCCG)**

Code of corporate governance is another important provision that regulates the operations of financial institutions in Nigeria. This is because there is Code of Corporate governance for the listing requirement in the Nigerian Stock Exchange (NSE), and for operations in specific institutions as earlier identified. The issued by Securities and Exchange Commission (SEC) for listing requirements (which is obligatory) on the Nigerian Stock Exchange (NSE) and Central Bank of Nigeria (CBN) for corporate best practices in financial institutions which is mandatory, are in accordance with the Companies and Allied Matters Act of 1999 (Now, 2004 as amended) (Demaki, 2013).

#### **2.7.2.1 Nigerian Code of Corporate Governance (NCCG) on Board of Directors**

##### **2.7.2.1.1 Responsibilities of the Board**

The NCCG 2011 stipulated matters relating to corporate board members in Nigeria by providing their responsibilities as the following:

1. The Board is accountable and responsible for the performance and affairs of the company. It should define the company's strategic goals and ensure that its

human and financial resources are been deployed effectively towards attaining those goals.

2. The principal objective of the Board is to ensure that the company is properly managed. It is the responsibility of the Board to oversee the effective performance of the management in order to protect and enhance shareholder value and to meet the company's obligations to its employees and other stakeholders.
3. The primary responsibility for ensuring good corporate governance in the company lies with the board. Accordingly, the board should ensure that the company carries on its business in accordance with its Articles and Memorandum of Association and in conformity with the laws of the country, observing the highest ethical standards and on an environmentally sustainable basis.
4. The board shall define a framework for the delegation of its authority or duties to management specifying matters that may be delegated and those reserved for the board. The delegation of any duty or authority to the management does not diminish in any way the overall responsibility of the board and its directors as being accountable and responsible for the affairs and performance of the company.

### **2.7.2.1.2 Duties of the Board**

Based on the NCCG 2011, the board should perform the following duties:

1. Formulation of policies, overseeing the management, and conduct of the business.
2. Formulation and management of risk management framework.
3. Succession planning and the appointment, training, remuneration and replacement of board members and senior management.
4. Overseeing the effectiveness and adequacy of internal control systems.
5. Overseeing the maintenance of the company's communication and information dissemination policy.
6. Performance appraisal and compensation of board members and senior executives.
7. Ensuring effective communication with shareholders.
8. Ensuring the integrity of financial reports.
9. Ensuring that ethical standards are maintained; and
10. Ensuring compliance with the laws of Nigeria.

### **2.7.2.1.3 Composition and Structure of the Board**

The NCCG 2011 requires that the board of directors of publicly traded companies should be composed and structured as the following;

1. The board should be of a sufficient size relative to the scale and complexity of the company's operations and be composed in such a way as to ensure diversity of experience without compromising independence, compatibility, integrity and availability of members to attend meetings.
2. Membership of the board should not be less than five (5), and should not exceed twenty (20).
3. The board should comprise a mix of executive and non-executive directors, headed by a Chairman. The majority of board members should be non-executive directors, at least one should be an independent director.
4. The members of the board should be individuals with upright personal characteristics, relevant core competence and entrepreneurial spirit. They should have a record of tangible achievement and should be knowledgeable in board matters. Members should possess a sense of accountability and integrity and be committed to the task of good corporate governance.
5. The board should be independent of management to enable it to carry out its oversight function in an objective and effective manner.

#### **2.7.2.2 Nigerian Code of Corporate Governance (NCCG) on Risk Management**

The NCCG 2011 states that the board may establish a Risk Management Committee (RMC) to assist it in its oversight of the risk profile, risk management framework and the risk reward strategy determined by the board. A written Terms of Reference or a Charter should guide the functions of the committee and should include the following:

1. Review and approval of the company's risk management policy including risk appetite and risk strategy.
2. Review the adequacy and effectiveness of risk management and controls.
3. Oversight of management's process for the identification of significant risks across the company and the adequacy of prevention, detection and reporting mechanisms.
4. Review of the company's compliance level with applicable laws and regulatory requirements which may impact the company's risk profile and performance.
5. Periodic review of changes in the economic and business environment, including emerging trends and other factors relevant to the company's risk profile and performance.
6. Review and recommend for approval of the board risk management procedures and controls for new products and services.

In order to enhance the risk management function, the NCCG 2011 requires that a member of senior management should be detailed to perform the function and attend the meetings of the Risk Management Committee (RMC). More so, the Chief Executive Officer (CEO), executive directors, and the head of internal audit unit should attend the meetings of the Risk Management Committee (RMC). Specifically, the CBN Code of Corporate Governance for best practices in the financial institution requires that the Board Risk Management Committee (BRMC) should compose of at least two (2) non-executive directors and the executive director overseeing risk management. A non-executive director should head the BRMC.

## 2.8 Underpinning Theory

A theory in an empirical study is like a brick that makes a building stand. Consequently, Mann (1985) cited in Adams, Khan, Raeside, and White (2007) define a theory as ‘a building which is made from the hard-won bricks of research studies’. In social science research, a theory is “a rational edifice built by scientists to explain human behaviour” (Cohen, Manion, & Morrison, 2007, p. 10). Whereas, Adams *et al.* (2007) defined a theory as ‘a set of systematically interrelated concepts, definitions, and propositions that are advanced to explain and predict phenomena (facts)’ (p. 28). Moreover, in quantitative research, a theory is an interconnected collection of constructs (or variables) modelled into hypotheses or propositions that stipulate the association among the variables (in terms of extent or direction) (Creswell, 2013).

Collectively, a theory may be referring to a set of ideas, coherent statement, or underlying principles, which explains an observed fact or process. That is, a theory explains a relationship that exists between variables (specifically in terms of direction, manner, and extent). For instance, a theory describes how variable ‘X’ relates to or influences variable ‘Y’, or how a collection of variables ‘X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>.....X<sub>n</sub>’ relate to or influence variable(s) ‘Y’, Y<sub>1</sub>, Y<sub>2</sub>, .... Y<sub>n</sub>’.

Therefore, agency theory and resource dependence theory will be used to explain the relationship between the variables in this study. This is because, in practice, Korn Ferry (1999) reports that board of directors as representatives of the shareholders, monitor and also provide resources to firms, and are both related to corporate performance. In this effect, Hillman and Dalziel (2003) contend that the integration of agency and resource

dependence theories is significant because it can assist in overcoming the contemporary myopic issues surrounding both streams of research. In addition, Hillman and Dalziel argue that "both agency theorists and resource dependence theorists have examined one board function (monitoring/the provision of resources) at the expense of the other, contributing to an incomplete understanding of what boards do and how they affect firm performance" (p. 383). In regards to this, agency theory which dominates studies on boards will be used as the major theory, while resource dependence theory will complement agency theory on some board variables.

### **2.8.1 Agency Theory**

Agency relationship ascends between two or more parties when one known as the agent acts on behalf of another known as the principal in making decisions concerning a particular problem (Ross, 1973). Agency theory is universally embraced by scholars in Economics, accounting and finance, organizational behavior, marketing, and political science (e.g., Basu, Lal, Srinivasan, & Staelin, 1985; Demski & Feltham, 1978; Eisenhardt, 1989; Eccles, 1985; Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976; Kosnik, 1987; Mitnick, 1986; Spence & Zeckhauser, 1971). Agency theory can be said to originate from the work of Adam Smith (1776) who wrote on the behaviour of managers in joint stock companies in his text '*The Wealth of Nations*', where he states that:

"The directors of such (joint-stock) companies, however, being the managers rather of other people's money than their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour and very easily give themselves a dispensation from

having it. Negligence and profusion, therefore, must always prevail, more or less in the management of the affairs of such company" (p. 990).

Based on Smith's (1776) assertion, it can be deduced that conflict of interest arises between owners of resources (principals) and their stewards/managers (agents) because, in the event of managing the principal's resources, they (agents) have their personal interest to achieve. Consequently, Berle and Means (1932) became the pioneers of agency theory by describing the separation between ownership and control in companies. Berle and Means contend that conflict of interest and separation can be the cause of agency problem in an organization which may result from inadequate checking of management functions by shareholders. Moreover, shareholders' interests may be impaired when managers want to maximize their self-interests at the expense of the firm success and efficiency. However, the most extensively-cited studies on agency theory spring from Jensen and Meckling (1976).

Jensen and Meckling (1976) state that agency theory is focused universally on agency relationship, where shareholders (the principal) delegates work to managers (the agents) who carries out the work and agency theory tries to define this relationship by means of a symbol of contract. Eisenhardt (1989) stress that agency theory concentrates on solving two problems which may arise in agency relationships. Eisenhardt state that "the first is the agency problem that ascends when (a) the desires or goals of the principal and agent conflict, and (b) it is difficult or expensive for the principal to verify what the agent is actually doing" (p. 58). Here, the problem is, the principal will find it difficult to verify whether the agent has actively behaved in a good manner. In addition, another problem is risk sharing which ascends when the principal (shareholders) and agent

(managers) have diverse attitudes on risk. As such, the principal and agent may desire to act differently due to their differences in risk preferences.

Moreover, Jensen and Meckling (1976) argue that agency costs ascend in any condition that involves cooperative effort (that is when two or more parties are engaged in accomplishing a particular task or objective). Agency problems come up for the reason that contracts that are not costlessly recorded and imposed (Fama & Jensen, 1983). The authors further claimed that agency costs are such costs that involve monitoring, structuring, and bringing together the collection of contracts amongst agents having conflicting interests. In the same vein, agency costs also involve the 'value of output lost' because the costs to fully implement the contracts outweigh the benefits.

Meanwhile, the association between the shareholders and management of a company fit the meaning of a real agency relationship, then it should be clearly understood that the issues related to the "separation of ownership and control" in the contemporary diffuse ownership company are significantly associated with the problem of agency generally (Jensen & Meckling, 1976). Nevertheless, controlling agency problems become necessary in the decision-making process in a company because when managers who formulate and enforce essential decisions are not the main residual claimants, hence do not bear a significant share of the wealth-effects of their decisions (Fama & Jensen, 1983).

Moreover, without effective and efficient control procedures, corporate managers may likely take actions or make decisions that diverge from the residual claimants' (shareholders) interests (Fama & Jensen, 1983). The authors added that:

“an effective system for decision control implies, almost by definition, that the control (ratification and monitoring) of decisions is to some extent separate from management (initiation and implementation) of decisions. Individual decision agents can be involved in the management of some decisions and the control of others, but separation means that an individual agent does not exercise exclusive management and control rights over the same decisions” (p. 304).

Consistently, Fama and Jensen (1983) affirm that in order to reduce agency costs that result from separating ownership and control, there is need of a system that can be used to differentiate between decision control and decision management of firms. This will in a long way reduce agency costs through control of management power and assuring an appropriate attention to stockholders' interests. As such, corporate governance can be seen as that system which will safeguard and enhance the rights of stockholders and other stakeholders. Besides, the unscrupulous behaviour of agents can be curtailed, and agency costs can be reduced by internal and external mechanisms of corporate governance (Fama, 1980; Fama & Jensen, 1983; McKnight & Weir, 2009; Shleifer & Vishny, 1986; Williamson, 1984).

More importantly, the highest systems of organizations' (large and small) decisions and control, where decision agents do not participate in the significant share of wealth maximization upon their decisions are regarded as *“some form of the board of directors”* (Fama & Jensen, 1983). The authors added that such board of directors usually possessed the power to employ, retrench, and compensate top executives and to confirm and oversee important decisions. The control of top executives' decisions by the board helps in separating decision management and control.

Furthermore, Eisenhardt (1989) contends that a specific appropriate information system to monitor the behaviour of executives is the board of directors. In addition, when the

board of directors provide adequate and relevant information, high-level decision managers (top executives) are more expected to behave in the best interests of shareholders. Moreover, Eisenhardt adds that the usefulness and greatness of board of directors' information can be measured based on characteristics like board size, board composition, board meetings frequency, proportion of board members that have long tenure, number of board sub-committees, board members with experience, and proportion of board members being representatives of a particular ownership groups.

Apparently, there is a stream of studies which empirically support the notion that effective board will ensure that the oversight functions of the board is improved and will overcome the problem of information asymmetry, which in turn enhances the market value of firm and performance. The studies use boards efficiency regarding its attributes like size (e.g., Afrifa & Tauringana, 2015; Fauzi & Locke, 2012; Fidanoski *et al.*, 2013; Guest, 2009; Joe Duke & Kankpang, 2011), composition (e.g., Marn & Romuald, 2012; Narwal & Jindal, 2015; Uadiale, 2010), meetings (e.g., Al-Matari *et al.*, 2014a; Harvey Pamburai, Chamisa, Abdulla, & Smith, 2015; Vafeas, 1999), CEO tenure (e.g., Afrifa & Tauringana, 2015; Agrawal & Knoeber, 1996; Kyereboah-Coleman, 2008), expertise (e.g., Andreou *et al.*, 2014; Dass *et al.*, 2014; Yatim, 2010), risk management committee structure (size, composition, meetings) (e.g., Ng *et al.*, 2012; Pathan, 2009; Tao & Hutchinson, 2013).

Therefore, this study will utilize agency theory and resource dependence theory because they concentrate on provision of advice, counselling, and monitoring functions which help in solving the problem of principal-agent relationship that is dominated by agency cost (Eisenhardt, 1989; Hillman & Dalziel, 2003), and corporate governance

mechanisms can be used in reducing the agency cost (Fama 1980; Fama & Jensen, 1983; Shleifer & Vishny, 1986). The corporate governance mechanisms like board characteristics and its subcommittees can ensure the effectiveness of the board, which will, in turn, enhance firms' value and performance (Denis & McConnell, 2003; Eisenhardt, 1989). Moreover, agency theory will be used to explain risk management practices and disclosure because the theory postulates that disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), which ensures that information is provided in the annual reports of companies (Depoers, 2000).

### **2.8.2 Resource Dependence Theory**

Albeit, agency theory has been the leading theory in research on boards (Zahra & Pearce, 1989), while this is the area of resource dependence theory's significant research influence (Hillman, Withers, & Collins, 2009). Resource dependence theorists assessed how board capital (expertise, experience, reputation) facilitates or provides resources to the firm (Hillman & Dalziel, 2003). As such, the board of directors enable firms to gain resources or minimize dependence (Pfeffer, 1972). Corporate boards do not only provide an important linkage to other companies but also guaranteed favourable transactions among these companies (Zahra & Pearce, 1989). Bazerman and Schoorman (1983) reported that the residual effects of the board of directors in this situation is ensuring an increase in coordination among firms, enhance access to important information and resources, and assist in reducing transaction costs.

In consistent with the work on theoretical underpinning of resource dependence theory by Pfeffer and Salancik (1978), the board has an important function of providing

resources to the organization (Hillman *et al.*, 2009), which (the function) refers to the ability of the board to convey resources to the firm. Resources, as explained by Wernerfelt (1984), is "anything that could be thought of as a strength or weakness of a given firm" (p. 172). When an individual is appointed by the organization to its board, it expects that the individual appointed will give adequate support to the organization, pay more attention to its problems and discuss it with others, and will try to assist in solving the problem (Pfeffer & Salancik, 1978). The authors proclaim that there are four basic benefits that can be ensured by corporate boards which include: "(1) advice and counsel, (2) legitimacy, (3) channels for communicating information between external organizations and the firm, and (4) preferential access to commitments or support from important elements outside the firm" (p. 145, 161).

In the same way, empirical evidence from resource dependence theory has shown that there is a significant relationship between board capital and performance of firms (e.g., Boyd, 1990; Johnson & Greening, 1999; Pfeffer, 1972). Proponents of resource dependence theory suggest that the provision of resources by board of directors is linked directly to firm performance (Hillman & Dalziel, 2003), assist to reduce dependency of organization on external contingencies, reduces uncertainties for the firm, minimized transaction costs, and assist in ensuring the survival of a firm (Pfeffer, 1972; Pfeffer & Salancik, 1978; Sing, House, & Tucker, 1986; Williamson, 1984).

Since resource dependence theory is on the conception that board of directors provide resources (advice and counsel, legitimacy, information access, and supports) to the firm to ensure its success, it is therefore expected that it will have an influence on company performance. Therefore, this study will utilize resource dependence theory to

complement agency theory in showing the relationship between the variables in this study.

## **2.9 Concept of Corporate Performance and its Measurement**

### **2.9.1 Concept of Performance**

The concept of firm performance has been a central idea of a debate in both literature and practice. This is because it is an essential requirement for an organization's survival and growth. However, Kakanda *et al.* (2016b), Marn and Romuald, (2012), and Yasser, Entebang, and Mansor, (2011) view firm performance as the process by which the limited amount of resources available to an organization, are effectively and efficiently managed in achieving its predetermined objectives for both short and long-term periods. In addition, firm performance is the increase in wealth of a shareholder from the beginning of a given period to the end of another period (Berger & Patti, 2002).

Neely, Gregory, and Platts (1995) report that performance is measured based on assessing and quantifying the efficiency and effectiveness of management in discharging their defined responsibilities. To Berger and Patti (2002), the financial performance of a firm can be determined using ratios derived from financial reports, which are mainly a statement of financial position and statement of comprehensive income, or the use of stock prices data on the capital market. From the foregoing definitions which are based on agency theory and resource dependence perspectives, firm performance and its measurement is most required by organizations to assess the effectiveness and efficiency of management, and it helps in providing vital information in decision making for the overall operation of the business.

In essence, profitability and market value of the firm are measures of its past and future ability to maximize returns, while an increase in its size determines its growth (Whetten, 1987; Glick, Ishburn & Miller 2005). However, Teeratansirikool, Siengthai, Badir and Charoenngam (2013) opine that measurement of performance plays a significant role in developing, applying, and overseeing a strategic plan. It assists corporate managers to assess the extent to which organizations predetermine objectives are achieved which is used as a basis of compensating managers. Performance measurement helps corporate executives to know whether the firm is moving in the planned direction, which is also the expectation of shareholders, and other parties that have a stake in the company.

### **2.9.2 Performance Measurement**

There are different ways of measuring performance, either based on accounting measurement or market-based measurement. Previous studies have utilized both accounting and market-based measurement of performance, while some studies use organizational based performance measurement. For the purpose of this study, both accounting and market-based performance measurements will be used.

#### **2.9.2.1 Accounting-based Performance Measurement**

The indices of measurement based on accounting data are but not limited to Return on Assets (ROA); Return on Equity (ROE), Return on Sales (ROS), Net Profit Margin (NPM), and Gross Profit Margin (GPM), Return on Capital Employed (ROCE), Return on Sales (ROS), Expenses to Sales (ETS), Return on Revenue (ROR) among others. Previous studies on the relationship between corporate governance mechanisms and

firm performance that use accounting based performance measures like return on assets (ROA), return on equity (ROE), net profit margin (NPM), dividend per share (DPS), and earnings per share (EPS) include (Amber, 2013; Marn & Romuald, 2012; Yasser *et al.*, 2011; Vance, 1978).

### **2.9.2.2 Market-based Performance Measurement**

The market-based performance measures include Market-to-book-value, Price-earnings (P/E) ratio, Tobin's Q, Earnings Yield (EY) and Dividend Yield (DY), Market-to-Book Value (MBV) ratio, Logarithm of Market Capitalization (LMC), Annual Stock Return (ASR) to mention but a few. Prior studies on the relationship between corporate governance mechanisms and firm performance that utilize market-based performance measures include (Kyereboah-Coleman, 2008; Kiel & Nicholson, 2003; Vafeas, 1999).

Based on the extant literature concerning the choice of performance measurement, some scholars (for instance, Bozec, 2005; Kyereboah-Coleman, 2008; Khan, Nemati & Iftikhar, 2011) have recommended the use of market-based performance measure, for example, Tobin's-Q. While some studies (for instance, Marn & Romuald, 2012; Amber, 2013) recommend the use of profitability measures like ROA, ROE, EPS, and NPM and so on.

Therefore, this study will utilize both accounting-based performance measures (ROA and ROE) following scholars like (Anderson & Reeb, 2003; Khan, 2012; Onaolopo & Kajola, 2010; Saibaba & Ansari, 2013; Yermack, 1996) and market-based performance measure (Market-to-book-value ratio [MTB], i.e. 'firm's total market value divided by

the book value of total assets') is consistent with Best (2004), and Gentry and Shen (2010). This is because accounting-based performance measures can be influenced by corporate managers to show their effectiveness and efficiency of operations to shareholders and other stakeholders. This is consistent with the opinion of Hitt (1988) who states that accounting measures have various deficiencies because they are subjected to alteration of accurate company performance at any point in time, subjective methods of depreciation, and abnormal charges may alter performance. In addition, accounting measures are rarely adjusted for risk.

However, market performance can only be influenced by the forces of demand and supply in the market, thereby showing a more specific performance of a company for a long-term business period (Hitt, 1988). Therefore, blending of accounting-based and market-based performance measures may ensure a better result in determining financial performance (Rowe & Morrow, 1999; Schwab, 1999) of listed financial institutions in Nigeria.

## **2.10 Corporate Governance**

### **2.10.1 Concept of Corporate Governance**

The concept of corporate governance is first utilised by Eells (1960), who state that corporate governance means the organization and effectiveness of a corporate policy. From then, the concept has been defined differently by various researchers. For instance, Shleifer and Vishny (1997) define corporate governance as the process by which providers of financial resources to corporations carry out effective operations of their businesses and strategize ways of maximizing adequate returns on their investments.

The Central Bank of Nigeria, CBN (2014) refers to corporate governance as the rules, processes, or laws by which institutions are operated, regulated and governed.

Moreover, CBN added that effective corporate governance practices provide and enhance a structure that works for the benefit of various stakeholders by ensuring that the enterprise adheres to accepted ethical standards and best practices as well as formal laws. Additionally, the Organization for Economic Development and Co-operation, OECD (2004) defined corporate governance as the procedures used by organizations in pursuing their set objectives in the circumstances of social, regulatory and market surroundings. Moreover, governance mechanisms include not only the monitoring of actions but with policies, practices and decisions of corporations, their agents as well as concerned and affected stakeholders.

The Organization for Economic Development and Cooperation, (OECD, 2015) stressed that “the corporate governance framework should promote transparent and efficient markets, be consistent with rule of law and clearly state the division of responsibilities among different supervisory, regulatory and enforcement authorities” (p.13). In relation to this, OECD further states that the principles (Code of Corporate Governance) identify the interests of other stakeholders and organization's employees alongside their significant role in ensuring the successful existence and performance of the firm. This indicates that an effective utilization or application of corporate governance principles established by various institutions (government and non-governmental regulators of companies) may enhance the predetermined objectives of a company.

Accordingly, Al-Matari *et al.* (2014a) asserted that with effective corporate governance principles in practice, financial disputes can be prevented. They further argued that apart from preventing financial disputes, corruption can be lessening, thereby improving the level of firm growth which finally amounts to the overall economic growth and development of a nation, and also improve the financial performance of a company. Equally, effective corporate governance has a significant function as a factor that guarantees growth and development potentials of an economy (Spanos, 2005).

Larker, Richardson, and Tuna (2007) viewed corporate governance as the collection of mechanisms that persuade corporate managers' decisions when ownership is separated from control. They argued that among the monitoring means are institutional shareholders, the board of directors, and market functions for control of the firm. While Akbar (2015) defines corporate governance as the mechanism that corporations used to protect shareholders' right. The author further stresses that the requirement for corporate governance emanates from agency problem. Because in organizational systems, corporate managers have extra control and information than the providers of resources (shareholders). In regards, as providers of resources (shareholders) are interested in the maximization of their investments, corporate managers may be busy after their job security and promotion.

Yilmaz and Buyuklu (2016) viewed corporate governance as an established relationship between the management of a company, its shareholders, other stakeholders, and its board of directors. corporate governance spells out the dissemination of rights and duties amid various participants (for instance, shareholders, managers, and other stakeholders) in a company by laying down the rules and processes to be followed in the decision

making of a company (Gavrea & Stegorean, 2012). In this effect, therefore, corporate governance offers the structure via which predetermined objectives of a company are set, and the process of achieving the set objectives and enhancement of performance.

Based on the above discussions, corporate governance can be referring to as the set of rules, procedures, and mechanisms utilized by corporations for effective control and management of organizational resources (man, material, money, and machines) towards achieving their set objectives that have impact on the interests of shareholders, management, employees and other stakeholders.

### **2.10.2 Corporate Governance (CG) Mechanisms**

Effective utilization of shareholders' resources depends on the corporate managers who have significant control and monitoring of the resources and may discharge their responsibilities according to their self-interests rather than shareholders' interests (Jensen and Meckling, 1976). From the perspective of the agency theory, the shareholders have little confidence that the managers will take an action on behalf of their own interests. The shareholder is in believing that the corporate managers will act for their personal interests and not for investors' interest. This conflict is getting worse due to the information asymmetry among the two parties. Therefore, this calls for the need of governance mechanism like the board of directors as proxies of the shareholders to oversee the activities of management in a company. In order to utilize corporate governance mechanisms to tackle the problem of principal-agent relationship, various studies (e.g., Cannella & Monroe, 1997; Coles, McWilliams, & Sen, 2011; Shleifer &

Vishny, 1997; Villiers, Naiker & Staden, 2011) have used mechanisms like board structure, ownership structure alongside other characteristics of a company.

Fan, Lau, and Wu (2002) reported that “corporate governance mechanisms of modern corporations are of the interest to investors, business practitioners, regulators, and scholars. These mechanisms can be broadly classified as internal and external. Internal governance mechanisms in developed market economies focus on the role and functions of ownership structure, boards of directors, CEO duality, and directors and executive compensation. External governance mechanisms concern the effectiveness of the managerial labour market, the market for corporate control, and government regulations” (p. 211). Therefore, this study use the Nigerian CG code 2011 for the internal mechanisms of corporate governance represented by board attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings), and risk management practices and disclosure.

#### **2.10.2.1 Board of Directors' Attributes**

Companies' boards are charged with the responsibility of overseeing the activities of corporate managers on shareholders' behalf (Uadiale, 2010). Finkelstein and Mooney (2003) argue that board of directors play a various and significant role in effective operations of corporations that include advice, oversight, counsel, and monitoring of the Chief Executive Officers (CEOs), and if necessary, to offer disciplinary actions on them. Agency theorists believe that corporate managers possess substantial power and

freedom to manage and control shareholders' resources. Masson (1971) opines that the agents (corporate managers) have some goals that may be in conflict with that of the principals (shareholders), therefore disregarding wealth maximisation goals of the shareholders. Following this, the board of directors are to undertake effective management functions like observing and recompensing of top executives in order to guarantee shareholders' returns maximization objectives (Uadiale, 2010; Zahra & Pearce II, 1989).

Consequently, for the board of directors to perform their functions effectively, some attributes like board size, board composition, board meetings, board expertise and so on must be in place (Kakanda *et al.*, 2016a). Whereas Brennan (2006) concludes that the effectiveness of the board of directors' oversight function is influenced by some factors like board size, board composition, CEO duality, board culture, information asymmetries, and board diversity. Thus, this study will concentrate on board size, board composition, board meetings, CEO tenure, and board expertise. While on board subcommittee, the study will focus on risk management committee size, risk management committee composition, and risk management committee meetings.

#### **2.10.2.1.1 Board Size**

Kakanda *et al.* (2016a) view board size as the degree of the board of directors of a company. It is the total number of directors serving on a company's board (Ogege & Boloupremo, 2014; Vafeas, 1999). Nevertheless, board size is regarded as the most fundamental dimension of board features because of fragmented views in the literature concerning it (Kakanda *et al.*, 2016a). The advocates of agency theory assume that a

board with smaller size is satisfactory and effective because monitoring duties will be minimized, hence boost the efficiency of operations, communication, and management. While a significant increase in board size leads to interruption and delay in decision making process, management, communication, crafts additional conflicting interests between shareholders and executives, and diminishes the moral of majority members, which finally affects firm performance (Abdurrouf, 2011; Jensen, 1993; Kakanda *et al.*, 2016a; Nanka-Bruce, 2011; Yermack, 1996).

Furthermore, Dahya and McConnell (2005), Goodstein, Gautum, and Boeker (1994), Kent and Stewart (2008), Pearce and Zahra (1992), Pfeffer (1987), and Villiers, Naiker and Staden (2011) contend that larger boards lead to diversity that would assist corporations to safeguard their resources and lessen uncertainties in environments, enhance directors' oversight function, and guarantee effective decisions by management. Moreover, Eulerich, Velte, and Van Uum (2014) suggest that a diversity of extra resources is made by an increase in board size because of different individual interactions within and outside the company by the board members.

According to Lipton and Lorsch (1992), the number of the company board of directors should be between seven and eight. This contention is consistent with the view of Jensen (1993). Consequently, Firstenberg and Malkiel (1994) contend that board of a company that have up-to eight or fewer members stand a significant chance to preserve better focus, meaningful debate, better participation, and good interaction. However, a requisite board size of a company relies on industry type, age, and company size (Adams & Mehran, 2003). They exemplified that board size in the banking industry is found to be larger than board size in the manufacturing industry. Nevertheless, the NCCG 2011

requires publicly traded companies to have a minimum size of 5 members on board but did not specify the maximum number required because this depends on organizational complexity and requirement. This reflects that board size should be optimal, rather than smaller in size to function effectively.

In line with agency theory, a larger board size ensures an effective and efficient monitoring of management which reduces the power of the CEO on corporate board of directors and therefore enhances firm performance (Singh & Harianto, 1989). Moreover, since agency theory is primarily to solve the problem of principal-agent relationship (Eisenhardt, 1989) which reduces agency costs from separating of ownership and control (Fama & Jensen, 1983), larger board size will hinder CEO's domination of the board because directors will be in a better position to exercise their powers and right in governing the firm, and thereby improve performance of the company (Zahra & Pearce, 1989).

Based on resource dependence theory which aims at provision of intangible resources by the board of directors to the firm (Hillman & Dalziel, 2003), so as to enhance firms' performance (Kiel & Nicholson, 2003), the size of boards is expected to contribute to better operations and performance of companies. This presumption is supported by Pfeffer (1972) who finds that size of the board of directors is directly related to firm's environmental needs, and firms that have larger interdependence need a significant ratio of outside directors.

It is worthy to mention that there is a stream of studies on corporate governance and firm performance in literature. However, the findings are inconclusive and conflicting.

One particular study by Fidanoski, Mateska and Simeonovski (2013) which aimed at investigating the relevance of board size, board composition and CEO qualities in the banks and their performance in Macedonia found that the size of both the Supervisory and the Managing board is positively related to return on asset (ROA) as one of performance variables. While a significant and positive relationship is also found to exist between the size of the Managing board and the Cost-Income Ratio. The study utilizes annual reports of fifteen (15) sampled banks in Macedonia for the periods 2008-2011, while regression (OLS) is used in analyzing the data collected. Variables like; Bank's age, Credits/Deposit Ratio and Dummy for Bank's nature are controlled for. The result of the study can still be biased because of limitations like; manipulation of financial statements by the managers, undervaluation of assets to have a higher return, use of manipulative policies to record depreciation, adoption of different methods to consolidate accounts and others (see Chakravarthy, 1986).

Suhail, Rasul, and Fatima (2017) studied the relationship between internal and external mechanisms of corporate governance and firm performance in Pakistan banks. The study utilizes a sample of 30 banks quoted on the Pakistan Stock Exchange (PSE) for the period of 2008 to 2014. ROA, ROE, Earnings Per Share (EPS), and Dividend Payout (DP) served as the proxies of performance. For analysis purpose, the authors make use of correlation and fixed and random effect models. The result shows that board size has a significant positive effect on ROA at the 0.01 level. Despite the contribution of the study to literature, yet, the sample size is small (30 banks only), and it concentrates only on banks without including nonbanks financial companies. Moreover, the study covers only board size and board composition among the numerous variables of board

characteristics (for instance, board meeting frequency, board expertise, board tenure etc.) which are believed to have a significant influence on firm performance.

Hidayat and Utama (2017) found that board size has a significant U-shape (positive and negative) relationship with firm performance in Indonesia. The study makes use of 293 companies quoted on the Indonesian Stock Exchange (ISE) from 2008 to 2012. Accounting based performance measure (ROA) and market-based performance measure (Tobin's Q) were used as proxies of performance. Descriptive statistics and multivariate regression analysis are used in analyzing the data. However, the end of the study period is 2012, which is 5 years difference from 2017, hence making a generalization of the result obtained difficult since various socioeconomic or financial policies of the government (2012-2017) might have influenced the activities (including performance) of the sampled firms used. Further, the study did not carry out correlation analysis to show the extent and direction of a relationship between the variables of the study.

In Nigeria, Ogege and Boloupremo (2014) found that board size has a significant and positive relationship with the performance of banks. Return on assets (ROA) and return on equity (ROE) are used as proxies for financial performance variables. The authors collected data from 15 listed banks in Nigeria for 2012 accounting period. Descriptive statistics, correlation, and linear regression are utilized for analysis purpose. One of the set back of the study is a sample size of 15 out of 21 DMBs are used, and it pays less attention to consider other non-banks financial firms. The study also dwells on only financial performance measures, and the use of a single operational period (that is 2012 only) will make a generalization of result difficult because the trends of the business over the period is not captured.

Additionally, board size has been found to have a significant positive relationship with the performance of listed small and medium enterprises (SMEs) in the UK. This is the result of a study by Afrifa and Tauringana (2015) whose study aimed at examining the impact of corporate governance mechanisms on the performance of listed SMEs in the UK. The study uses data from AMADEUS commercial data base of 234 listed SMEs on the UK Alternative Investment Market (AIM) for 10 years (2004-2013). Descriptive statistics, correlation, and multiple regression are used in the analysis of the data. Tobin's Q is utilized as a proxy for performance which is the dependent variable of the study. However, the study has concentrated only on SMEs which may have different capital requirements, operational mode, listing requirements, and nature of transactions with general products and service firms, this will make a generalization of findings difficult. Moreover, the study uses only market performance measures (Tobin's Q) as the dependent variable while ignoring financial performance measures. Here, the blending of both (financial and market) performance measures is needed in future research to determine the association between board size and performance.

Fauzi and Locke (2012) examine board structure role and the impact of ownership structure on the performance of New Zealand firms. The study uses a balanced panel data from the annual financial reports of 79 from the total of 147 listed firms in New Zealand (New Zealand Stock Exchange, NZX) covering periods of 2007 to 2011. The 79 firms are selected from service, primary, goods, energy, property, and investment sectors. Return on assets and Tobin's Q are used as performance variables, and the study uses Generalized Linear Model (GLM) for analysis in order to achieve robustness. The study finds that board size has significant positive effect on the performance of firms in New Zealand because board size in New Zealand is spanned from 3 to 12 and the

average is 6 as appears in the firms, indicating a sufficient board size. The coefficient of board size shows significant positive association with both returns on asset and Tobin's Q. The study covers the time from 2007-2011 involving a sample size of 79 listed firms in New Zealand, therefore the validity of interpreting the findings is limited to data scope and circumstances of economics for the data periods.

In another study by Joe Duke and Kankpang (2011), board size has significant relation with performance measured by return on assets (ROA) and profit margin (PM) because a larger board size enables more commitment and better decision making in companies. Data is obtained from the annual reports of 40 randomly selected firms quoted on the Nigerian Stock Exchange over a period of 5 years. Descriptive statistics, Pearson's Product Momentum coefficients of correlation, and OLS regression is used in analyzing the data collected. Their study has not stated specifically the years (in periods) covered, but only provide the number of years (5). This will have a consequence on the interpretation of the effect of board size on performance since the NCCG has several reforms in 2003, 2009, and 2011. More to this, there is no justification for the sample selection because out of the 40 sample firms used in the study, 20 are selected from publicly quoted firms while the remaining 20 are selected using judgmental sampling from unquoted firms. This may create bias in the selection process and may have an effect on the outcome of the study. In addition, the study dwells only on financial performance measures (ROA and PM) without considering market performance like Tobin' Q or Price/Earnings ratio so as to have a better result on the association between board size and firms' performance.

Conversely, O'Connel and Cramer (2010) assess the association between board characteristics and performance of firms' in Ireland. Their study considers listed firms on Irish Stock Market (ISM), and data is collected from the annual reports of the 77 companies for the period ended December 2001. Their study excludes eight financial firms from the sample because of the uniqueness in their financial reports. The performance variable is proxied by return on asset, stock market returns (raw) and financial Q. The study uses OLS estimates for analysis purpose, and the results indicate that board size has a significant negative relationship with performance. The following may likely be the flaws in the study: (1) the result is limited to one accounting period, therefore their findings lack generalization over several years; (2) absence of information available to public and the sample size is limited due to a minimal number of listed companies on Irish stock market (Brennan & McDermott, 2004); (3) the study has less chance for important sector or industry analysis due to small sample size; and (4) the accuracy of prediction of their findings for comparison purposes is limited, as quoted firms in Ireland are commonly few and have smaller boards as reported by the authors.

Relatively, Guest (2009) studied the effect of board size on the performance of UK listed firms. The study utilizes 2746 listed firms in the UK over the period of 1981-2002. The main dependent variable (DV) in the study is profitability, proxied by return on asset (ROA). In addition to ROA, share returns (yearly share return for 12 months preceding previous financial year-end) and Tobin's Q (book value of total assets + market value of equity – book value of equity/book value of total assets) are also used as performance measures for robustness of results. Board size in the study is measured by the log of the whole number of directors. For analysis purpose, the author employs OLS and the result

indicates that board size has significant negative effect on profitability, share returns, and Tobin's Q. Furthermore, the study finds that the negative association between board size and performance is significant in larger firms who have large boards. This is because boards in the UK have a weak monitoring role, therefore less effective in monitoring function. One of the major challenges of the study despite its large sample is the exclusion of companies in property and financial sectors in the UK, and having an unbalanced panel data from 2746 companies over the periods of 1981 to 2002.

Therefore, due to the conflicting findings by previous studies that assessed the relationship between board size and corporate performance, this study will re-examine the relationship in regards to financial services firms in Nigeria because most of the studies conducted in the context neglect board characteristics and performance of financial institutions in Nigeria, rather concentrating only on banks.

#### **2.10.2.1.2 Board Composition**

Board composition is the number of non-executive directors on board of a company (Kakanda *et al.*, 2016a). It is the ratio of non-executive directors to total directors (Marn & Romuald, 2012; Yasser *et al.*, 2011). While Uadiale (2010) refers to board composition as the proportion of independent non-executive directors to the summation of directors on the board. Board composition is also referring to as the percentage of the executive (inside) and non-executive (outside) directors on a company's board (Akbar, 2015). Clifford and Evans (1997) assert that independent non-executive director is that independent director who doesn't have any connection with the company apart from the directorship.

It has been presumed that boards with significant outside directors will effectively perform their duty and have better decisions than a board that is dominated by inside directors. Fama and Jensen (1983), Jones and Goldberg (1982), and Spencer (1983) argued that non-executive directors' representation on the board increases board independence, directors' objectivity and enhances directors' expertise. On the contrary, other studies suggested that non-executive directors do not have the required time, knowledge, skill and expertise to carry out their work effectively (Geneen, 1984; Vance, 1983).

Baysinger and Hoskisson (1990) contend that due to the formal evidence of power setting of the board, it might be valuable to assess how this materialistic change in the composition of the board may affect the relationships between corporate managers and shareholders, the tactical decision-making process and strategic results in companies. This means that the composition of board matters as it may have an influence on the performance of companies.

Based on the NCCG 2011, publicly traded companies should have a board comprising of both executive (inside) and non-executive (outside) directors so as to be independent of the management and carry out oversight function effectively. This means that a company that has a board of directors dominated by non-executive directors may become independent of the management and functions more effectively.

Agency theory attributes an important role to boards in governance and organizational structures of a particular large corporation (Bathala & Rao, 1995). Relatively, proponents of agency theory argue that there is need for increase of outside (non-

executive) directors in board composition (Zahra & Pearce, 1989), because it leads to an increase in board independence for better management, enhance expertise of the boards, increases board's objectivity, and improve corporate activities to suit contemporary economic environment (Jones & Goldberg, 1982). In addition, agency theory supports the involvement of non-executive directors in controlling and overseeing any abnormal activities by the management which reduces agency costs and finally enhances firm performance (Le, Walters, & Kroll, 2006). On the basis of agency theory, a board that is dominated by a large number of nonexecutive directors are in a better position to operate in the best interest of shareholders and improve firm performance via effective oversight functions on the management (Hermalin & Weisbach, 1988).

The composition of a board with a higher proportion of outside directors is also supported by resource dependence theory. This is consistent with the opinion of Pfeffer (1972) that organizations that largely depend on external contingencies require a higher proportion of outside directors. Moreover, companies that invite and appoints powerful community members into their boards acquired vital resources from the external environment (Provan, 1980). In the same vein, companies that operate in regulated industries are more likely to require the service of the larger ratio of outside directors, especially those having relevant experience (Pfeffer & Salancik, 1978).

To justifiably know the relationship between board composition and firm performance, various studies are empirically undertaken. For instance, Ali, Liu, and Niazi (2017) examine the relationship between CG and performance (ROA and ROE) of peer firms in Pakistan. The authors collected data from the annual reports and accounts of 100

nonfinancial companies listed on the Karachi Stock Exchange (KSE) from 2006 to 2011. The Partial Least Square-Structural Equation Model (PLS-SEM) was applied in analyzing the data. The result shows that board composition has a significant positive effect on firm performance. The setback in this study include; elapsed time period (2006 to 2013), use of nonfinancial companies in the sample, and excluding other important board structure variables like expertise, board meeting, board tenure and so on.

Harvey Pamburai *et al.*, (2015) investigate the association between CG mechanisms and performance of firms in South Africa. The authors use 158 listed companies in South Africa as a sample from the population of 374 listed firms in South Africa for accounting period 2012. Their study ignores property, insurance and banking sector from the sample due to their peculiar governance rule and companies Act. Return on assets, economic value added (EVA), and Tobin's Q are employed as proxies of performance. For analysis purpose, descriptive statistics, correlation, and multiple regression analyses are engaged. The results indicate that board composition (represented by the proportion of non-executive directors) has significant positive effect on the performance of listed firms in South Africa.

Board composition has significant relation with performance of Micro-finance banks in Nigeria (Paul, Ebelechukwu, & Yakubu, 2015). The study collected data from the annual reports of 23 sampled Micro-finance banks from North central region of Nigeria covering the year 2011 to 2013. Return on assets (ROA) and earnings per share (EPS) have proxied financial performance measure. The study employed Pearson correlation and OLS regression for analysis purpose. The study considers only one geographical zone in Nigeria (North central), this may not represent the general outcome of Micro-

finance banks in Nigeria. Moreover, some Micro-finance banks are listed on the Nigerian Stock Exchange (NSE) called Alternative Security Market (ASM) while others are not, and in the study, there is no explanation about the status of the selected sample used. It should be noted that listed firms are more adhering to Code of Corporate Governance than non-listed firms because of the listing requirements in the capital market. The period of the study also needs to be extended.

From the study by Chechet, Jnr., and Akanet (2013), board composition has been found to have a significant positive effect on the performance of Nigerian Deposit Money Banks (DMBs) because the significant number of non-executive directors have made the board independent of the management, and can act effectively. The study collected data from the annual financial reports of 14 DMBs for the periods of 2005-2011. Return on assets (ROA) is used as the performance variable. Descriptive statistics, correlation, and multiple regression are employed as analysis tools in the study. Variables like size, leverage, sales growth, and firm age are not controlled for in the study, and they may influence firm performance (Afrifa & Tauringana, 2015) which may influence the outcome of the study. Moreover, the study concentrates on one variable of financial performance (ROA) while there are other variables like ROE, EPS, Tobin's Q, Earnings Yield (EY), P/E ratio, to mention but a few, which can also be used as dependent variables.

Consistently, Yasser *et al.* (2011) found that board composition has significant and positive relation with performance of listed firms in Pakistan. The performance measure as the dependent variable is proxied by return on equity (ROE) and profit margin (PM). Data is collected from annual reports of 30 sampled firms covering periods of 2008 and

2009. In order to carry out the analysis for their study, descriptive statistics, correlation, and ANOVA are utilized. Nevertheless, the sample size of the study is relatively small, and the period covered by the study is only two years (2008 and 2009). This will make the generalization of the result difficult because the firms' operational trends which will affect performance over time is not captured. In addition, the study only utilizes financial performance measures (ROA and PM) without considering market performance measures.

On the other hand, Farhan, Obaid, and Azlan (2017) document that board independence (composition of nonexecutive directors on the board) has significant negative effect on the performance of quoted firms in the United Arab Emirate (UAE). The study collected data from the annual financial reports of 72 sampled companies listed on the UAE stock market for the period of 2010 to 2013. Return on asset (ROA) and Tobin's Q are used as the proxies of firm performance. For analysis purpose, descriptive statistics, correlation analysis, and multiple regression analysis were utilized. The study flawed in terms of the period covered (2010 to 2013) which needs to be extended. More so, other corporate governance variables like; busy directors, board meetings, risk management committee characteristics, to mention but a few are being ignored by the study.

Marn and Romuald (2012) examined the effect of corporate governance and firm performance in Malaysia. Data is collected from 20 listed firms in Malaysia from the year 2006 to 2010. Firm performance is proxied by Earnings Per Share (EPS), and descriptive statistics, correlation, and regression analysis are used in the analysis of the data. The result indicates that board composition has no significant impact on the performance of Malaysian listed firms. The study only focuses only on earnings per

share in determining the performance of listed lead in Malaysia, while there are other performance measures like return on assets, return on equity, net profit margin, Tobin's Q, dividend per share among others. The study also uses small sample size (20 firms) out of about 800 has listed on the Bursa Malaysia, the sample selected doesn't represent the population, and there are no specific criteria used in selecting the said sample. This may lead to non-generalization of the result and renders comparison with results of other studies difficult.

Moreover, board composition (represented by the proportion of Non-executive directors) is not significantly related to profitability (performance) of the textile industry in India, as indicates in an empirical study by Narwal and Jindal (2015). The study collected data from the annual financial reports of 40 companies from textile industry listed on National Stock Exchange and Bombay Stock Exchange in India, for 5 years starting from 2009 to 2014. Correlation and OLS regression are employed in analyzing the data, and the overall results show a negative relation between board composition (Non-executive directors) and profitability (profit after tax, PAT). The study uses only PAT as a performance variable while there are other available performance variables measuring both profitability and market performances that need to be explored.

Latif, Shahid, Haq, Waqas, and Arshad (2013) investigate the effect of CG mechanisms on the performance of Sugar Mills in Pakistan. Data is collected from annual published accounts of 12 sampled firms out of 84 Sugar Mills for the periods of 2005 to 2010. Arithmetic means, t-test, and analysis of variance (ANOVA) are employed in analyzing the data. The result from the study indicates that board composition has no significant effect on performance (proxied by ROA) of Sugar Mills in Pakistan. One of the

limitations of this study is 'small sample', and it uses only ROA in measuring performance. Moreover, the study didn't utilize regression so as to determine the coefficient of board composition to performance.

#### **2.10.2.1.3 Board Meeting Frequency**

Board meeting refers to the gathering of directors on the board to discuss significant issues regarding the company (Kakanda *et al.*, 2016a). It is measured as the number of meetings during a year by a company board of directors (Al-Matari *et al.*, 2014a; Chechet, Jnr., & Akanet, 2013; Vafeas, 1999). meetings play a significant role in the success of a company, and it serves as an important avenue for effective decision making of a company. Board of directors hold meetings on behalf of the company to discuss issues of the past, present, and future that is related to the company, and resolutions are passed during board meetings (Kakanda *et al.*, 2016a). Therefore, the more the number of board meetings, the better for a company, because the boards will have more and better chances of making various decisions (Khan & Javid, 2011; Pearce & Zahra, 1992).

Moreover, Conger, Finegold, and Lawler (1998) suggest that board meeting is a significant resource for enhancing board of directors' effectiveness. Relatively, Lipton and Lorsch (1992) proclaimed that the more regularity of board meetings, the more likely of an organization to obtain high performance. Board meetings attendance is the basic medium via which board of directors obtained vital information needed to carry out their functions (Das & Dey, 2016). They added that default in attending board meetings may result in inappropriate advice from the directors concerning strategic

decisions of the company, alongside resulting to ineffective monitoring and oversight function of the board.

Based on the requirements of the NCCG 2011, boards of publicly traded companies are to meet at least once every quarter (that is four times in a year) in order to effectively perform their oversight function and monitor the performance of management. However, agency theory highlights that corporate board of directors displays significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the performance of firms where there is a higher frequency of board meetings (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999). Therefore, the expectation is that frequency of board meetings may ensure that objectives of companies are achieved especially regarding their performance.

Consequently, results from empirical studies that attempt to investigate the effect and relationship between board meetings and firm performance are still inconclusive because of mixed results. Arora and Sharma (2016) investigate the impact of corporate governance on the performance of large quoted firms in India. Data for a sample of 1922 large companies listed on the Bombay Stock Exchange was collected from PROWEES [3] database for the period of 2001 to 2010. ROA, ROE, Net Profit Margin (NPM), and Tobin's Q are used as proxies of performance, and multivariate regression was used in analyzing the data. The study finds that board meeting frequency has a significant positive impact on firm performance. The result of the study is not up-to-date as many economic activities might have occurred between the year 2010 to 2017 (8 years difference). Moreover, the study fails to incorporate any of the board committees (like risk management committee and audit committee) available. Also, the study

concentrates only on manufacturing, chemicals, and machinery sectors without paying attention to the financial service sector. As such, there is the need for further study to overcome the flaws identified in this study.

Liang *et al.* (2013) examined the impact of board characteristics on performance and asset quality of banks in China. The study finds that board meeting frequency has a positive and significant effect on asset quality and performance of banks because the board that meets more frequent tends to be more effective in advising and supervision functions. Data for the study is collected from Bank-scope database of 50 largest banks in China covering periods from 2003 to 2010. The dependent variable is performance (proxied by ROA & ROE) and asset quality (proxied by Non-performing loan, NPL & Net Charge Offs, NCOs), and the study utilizes OLS for the purpose of analysis. However, the study dwells only on selected largest banks in China while ignoring small banks, and large here is not clearly defined. Here, other financial institutions need to be included to know the overall relationship between board meetings and performance of financial institutions because it may amount to the generalizability of findings. In addition, only financial performance measures (ROA & ROE) are considered while overlooking market performance measures.

Additionally, Barisua, Torbira, and Lenee (2012) find that board meeting has significant positive effect on the performance of banks in Nigeria. Data is collected from published annual reports and accounts of 21 deposit money banks (DMBs) in Nigeria for the period 2005 to 2009. Performance variable is proxied by earnings per share (EPS) and net profit margin (NPM). For analysis purpose, the study uses multivariate regression and short-run OLS. The drawback of the study is the use of banks only from more than 50 available

firms in the Nigerian financial services industry. In addition, the revised Code of Corporate Governance for publicly traded companies in Nigeria is issued after the study period (2005-2009) by SEC in 2011 which is based on international standard practices.

Logically, Al-Matari *et al.* (2014a) studied the impact and relationship between characteristics of the board of directors and firm performance. The study collected data from annual financial reports of 81 companies listed on the Muscat Security Market (MSM) in Oman for two years' period (2011 and 2012). Descriptive statistics, correlation and multiple regression are used in analyzing the data collected. The result obtained indicates that board meetings have a positive but not significant association with performance (represented by ROA). This shows that boards that meet more frequent are likely to have better performance than boards that meet less often. Nevertheless, despite the relatively large sample size used, the study lacks generalization as financial companies (banks) are excluded from the study due to their peculiarity of structure, mode of operation, and accounting practices. The study also considers the periods of 2011 and 2012 only, this is not enough to know the trends of board meetings and performance over several business periods, hence, the need to extend the period of study.

On the other hand, Hassan, Naser, and Hijazi (2016) found that board meeting frequency has a significant negative influence on the performance of companies listed on Palestinian Stock Exchange. Data for the study was obtained from 27 non-financial firms listed on the Palestinian Stock Exchange for the period of 2010 to 2012. The proxies of performance include ROA, ROE, Tobin's Q, and Market value to book value of equity. For analysis purpose, descriptive statistics, correlation analysis, and multiple

regression analysis were utilized. The end period of the study is 2012 which not up to date and may make the result of the study redundant. Moreover, the study considers all nonfinancial companies excluding financial companies, hence, the result suffers from generalization.

Vafeas (1999) examines the relationship between board meeting frequency and performance of firms in Cyprus. Data is collected from the published financial reports of 307 sampled firms. The dependent variable of the study is Firm value, proxied by return on assets (ROA) and market-to-book ratio. Ordinary Least Square (OLS) and Two-Stage Least Square (2SLS) are used in analyzing the data, where the results indicate that board meeting has a negative relationship with performance because board meetings are not proactive but reactive. This means that board that frequently meets is less valued by the market. As a limitation, the study explores only two performance variables besides that there are other measures of performance that can be utilized. Moreover, the periods need to be extended because the study is carried out (1990-1994) prior to 2002 Enron scandal and the 2008 global financial crisis, where many issues (reforms of CG Codes, company laws, and so on) might have taken place after the study.

Harvey Pamburai *et al.*, (2015) investigate the association between CG mechanisms and performance of firms in South Africa. The study uses 158 companies as a sample from the population of 374 listed firms in South Africa for accounting period 2012. The study excludes property, insurance and banking sector from the sample due to their peculiar governance rule and companies Act. Return on assets, economic value added (EVA), and Tobin's Q are employed as proxies of performance. For analysis purpose, descriptive statistics, correlation, and multiple regression analyses are engaged. The

results indicate that board meeting frequency has significant negative relation with both Tobin's Q and ROA, showing that board of companies that hold meetings less often have better performance than those that hold board meetings frequently. One of the major flaws of the study is the use of data for only one accounting period (the year 2012). Here, the operational trends of the sampled companies over several periods may be difficult to ascertain, hence making the generalization of results difficult. Moreover, comparisons of result with the results of other studies carried out in different economies may be difficult because of the limited period used in carrying out the study.

Similarly, Jackling and Johl (2009) assess the association between CG internal features and financial performance (ROA) of firms in India. The study uses agency and resource dependence theory. Data is collected from 180 top listed companies in India (on Bombay Stock Exchange) on the basis of market capitalization in 2006. finance companies and banks are excluded from the sample due to their amount of regulations and difficulty in ascertaining Tobin's Q. 3SLS is utilized for analysis purpose, and the result obtained indicates that board meeting frequency has no significant relation with firm performance in India. The drawback in the study is the use of limited variables linked to corporate governance which hinders the generality of the study findings. Another important issue that may hinder the generalizability of the result is the use of one accounting period. Moreover, the study excludes financial firms from its sample despite the pivotal role the sector plays in mediating economic activities of a nation.

#### **2.10.2.1.4 CEO Tenure**

Tenure denotes a period of time during which something is possessed. Afrifa and Tauringana (2015) opined that Chief Executive Officers (CEOs) that hold office for a longer time period is predictable to perform better compared to those CEOs who have been in office for a shorter time period. They further argued that longer tenure assists the CEO to develop a good relationship with stakeholders, alongside having a good plan and implement a long-term strategy that will improve performance and operational efficiency of the company.

In line with the recommendation of the NCCG 2011 and provisions of the Companies and Allied Matters Act (CAMA) (1990) in Nigeria, all directors of publicly traded companies should be due for re-election at regular intervals of at least once every three (3) years. This is specifically referring to executive directors (including the CEO) because the NCCG 2011 requires that “non-executive directors should serve for a reasonable period on the board”. This means that CEOs should hold office for a term of three (3) years subject to re-election at the Annual General Meeting (AGM) of a company.

A positive relationship is found between CEO tenure and firms' performance (Agrawal & Knoeber, 1996). CEO tenure has been an important element for research concerning executive and organization leadership (Simsek, 2007). Kyereboah-Coleman (2008) argues that the longer period a CEO of a firm serves in office, the better for the shareholders' interest to be achieved.

On the basis of Agency theory, Eisenhardt (1989) reports that outcome-focused contracts are considered effective in reducing the conflict of interests in a principal-agent relationship. Therefore, the significant or longer period of a CEO of a firm, the better the performance and value of a firm (Tsai, Hung, Y. Kuo, & L. Kuo, 2006). Furthermore, McClland (1961) argues that organizational executives are considered as being inspired by a need to attain a certain goal, to exercise accountability and authority, to gain inherent satisfaction by performing challenging work, and to be recognized by peers and principals (bosses). Donaldson and Davis (1991) suggest that "identification by managers with the corporation, especially likely if they have served there with long tenure and have shaped its form and directions, promotes a merging of individual ego and the corporation, thus melding individual self-esteem with corporate prestige" (p. 51).

Considering resource dependence theory, Pfeffer and Salancik (1978) that provide a particular focus on organizational dependence and uncertainties, they concluded that, "executive succession is itself one strategic response to environmental contingencies" (p. 248). By the same token, the authors provide a model of effects as thus:

"(1) the environmental context, with its contingencies, uncertainties, and interdependencies, influences the distribution of power and control within the organization; (2) the distribution of power and control within the organization affects the tenure and selection of major organizational administrators; (3) organizational policies and structures are results of decisions affected by the distribution of power and control; and (4) administration who control organizational activities and resultant structures" (p. 228).

Hillman *et al.* (2009) emphasize that when a company experiences unfavourable performance, they are more probable to replace their CEO and market for the business is likely to react better. Moreover, firms that highly depend on the environment are more likely to faced higher executive turnover (Harrison, Torres, & Kukalis, 1988). It is therefore expected that the tenure of a CEO may influence the performance of firms.

Specifically, Al-Matari *et al.* (2014a) report that CEO tenure has a positive but not significant impact on firm performance (represented by ROA) of listed companies in Muscat Security Market (MSM) in Oman. This indicates that a CEO that spends a long time in his position will lead to a better performance of firms. The study collected data from annual financial reports of 81 firms listed on the Muscat Security Market (MSM) for 2-years period (2011 and 2012). Descriptive statistics, correlation and multiple regression are used in analyzing the data collected. Nonetheless, the study lacks generalization as financial companies (banks) are excluded from the study due to their peculiarity of structure, mode of operation, and accounting practices.

In Nigeria, Sanda, Garba, and Mikailu (2011) identify that the tenure of the chief executive officer has significant positive effect on firm performance. ROA, ROE, P/E ratio, and stock returns are used as proxies of performance variable. Data for the study is collected from annual reports of 89 sampled firms via Securities and Exchange Commission office in Abuja, Lagos Stockbroking firm, NSE Factbook for the period 1996 to 2004. Descriptive statistics, t-test, and fixed effect regression (to overcome the biases of omitted variables in panel data) are used for analysis purposes. The flaw of the study is the use of mixed firms from various industries which might affect the results because of differences in industry capital requirements, incorporation requirements, and

industrial ethics. More so, the period used in the study needs to be extended because the NCCG was revised in 2011 which is different from the one used in the study.

Goldsmith (2012) examines the effect of CEO tenure on firm performance. The study finds that CEO tenure has significant positive impact on the performance of US financial service firms. Performance measures utilized by the study are ROE and ROA collected from the annual reports of 282 US financial service firms. The data from annual reports of the sample firms is obtained for 10-years period (1999 to 2009) via Security and Exchange Commission. For analysis purpose, the study utilizes Logistic Regression Model, Multiple Regression Model, and Linear Mixed Model. Still, the study did not address the issue of risk management practices of the sample firms despite the sensitivity of their operations, as they are highly exposed to risk.

Contrarily, Kyereboah-Coleman and Osei (2008) found that tenure of CEO has a negative relation with the profitability of micro finance institutions (MFIs) in Ghana. The researchers collected primary and secondary data from a sample of 52 MFIs for a period of 10 years (1995-2004). Return on assets is used as a proxy of profitability (that is performance), while descriptive statistics and regression analysis are used for the panel data analysis. The study is limited to micro finance institutions and considering 52 sample only. Therefore, the sample size, period of time, and other firms (like banks and other non-banks financial institutions) need to be considered in future research.

In determining the relationship between CEO tenure and firm performance, Belkhir (2009) finds that tenure of CEO has significant negative relation with firm performance in the banking industry in United Arab Emirates (UAE). Data is collected from a sample

of 174 companies (banks and savings-and-loans holding companies) through the period of 1995 to 2002. For performance variable, Tobin's q and return on assets are used as its proxies, while descriptive statistics, correlation analysis, and fixed effect regression are used for in analyzing the data. the major setback in the study lack of concentrating on the risk management practices of the sampled firms despite their role in boosting an economy through acceptance of deposits and granting of loan functions.

Furthermore, Kyereboah-Coleman (2008) finds that CEO's tenure negatively affects firm's profitability, because when CEOs stay longer in a position, they tend to pursue their personal objectives rather than firm's objectives which have an adverse effect on performance. The study acquired data from financial reports of 103 listed firms selected from four (4) African countries including Nigeria, Ghana, South Africa, and Kenya. The data covers a 5-year period ranging from 1997 to 2001. Return on assets and Tobin's Q are variables that proxied performance. For analysis purpose, the study utilizes Dynamic Panel Model estimation, Random Effect, Fixed Effect, and OLS. However, the result of the study may be influenced by factors like corporate/business laws of different countries, market capitalization, and Code of Corporate Governance differences, this is a significant drawback to the findings of the study.

Moreover, Afrifa and Tauringana (2015) studied on how the performance of UK SMEs is related with mechanisms of corporate governance. CEO tenure has been found to have no significant positive relationship with the performance of listed SMEs in the UK. The study uses data from AMADEUS commercial data base of 234 listed SMEs on the UK Alternative Investment Market (AIM) for 10 years (2004-2013). Descriptive statistics, correlation, and multiple regression are used in the analysis of the data. Tobin's Q is

utilized as a proxy for performance which is the dependent variable of the study. One of the setbacks of the study is, it concentrates only on SMEs which may have different capital requirements, operational mode, listing requirements, and nature of transactions with general products and service firms, this will make the generalization of findings difficult.

#### **2.10.2.1.5 Board Expertise**

Expertise denotes the great skill or knowledge in a particular field or hobby. An expert can be described as one having an elongated or concentrated experience through education and practice in a given field. It is generally agreed that it is not compulsory for one to have an academic or professional qualification before being regarded as an expert. For instance, a herdsman with 30 years of experience nurturing Cattles would be acknowledged as having broad expertise in the training and care of Cattles. Therefore, board expertise can be regarded as having great skill and knowledge through education, training, and prolonged participation of a board member on board matters in various companies' boards. Yatim (2010) argues that board expertise is imperative in ensuring that the oversight function of the board is successfully carried out. In the same vein, it has been argued that directors that sit on the board of more than one company will enable them to acquire more skill, knowledge, and become more expertise in carrying out their oversight functions on managers' activities (Nadarajan, Chandren, Bahaudin, Mohammed Elias, & Mohd Nawi, 2015).

Notwithstanding, the NCCG 2011 recommends on board expertise (multiple directorships) of publicly traded companies that: "There should be no limit on the

number of concurrent directorships a director of a company may hold. However, concurrent service on too many boards may interfere with an individual's ability to discharge his responsibilities, the board and the shareholders should, therefore, give careful consideration to other obligations and commitments of nominees in assessing their suitability for appointment to the board" (p. 16).

Meanwhile, previous studies argue that serving on various companies' boards (multiple directorships) by directors enable them to gain expertise, experience, and skills that are essential for better decision making that will improve company's performance (Ashbaug-Skaife, Collins, & LaFaond, 2006; Fama & Jensen, 1983; Field, Lowry, & Mkrtchyan, 2013). Andreou, Louca, and Panavides (2014) contended that a director that serves on other boards who can be referred to as a 'busy director' is a gauge of expertise and competency of the board which can boost firm performance. In contrast, Bhagat and Black (1999), and Klein (1998) argue that board members that serve on several boards overseeing management are weak, hence, negatively affects firm performance.

Theoretically, proponents of resource dependence theory argue that directors serving on boards of several companies will have more experience and become beneficial to the success of organizations. This is consistent with Boyd (1990) who recommends that multiple directorships of the board of directors are beneficial, and the main focus of board should compose of 'resource-rich' directors. Boyd states further that number of directors doesn't matter, but the sort of directors serving on the board. More so, resource dependence theory argues that directors holding multiple positions on several boards rely on external resources so as to enhance firm performance (Kiel & Nicholson, 2003), and multiple directorships of directors assist the firm in having access to external

linkages and resources that can ensure effective and efficient business operations. Board interlocks (multiple directorships of directors) play a significant role in circulating timely and profitable information among firms which help in reducing transaction costs when dealing with environmental uncertainties, thereby improving firm performance (Burt, 1984; Hillman & Dalziel, 2003).

As reported by Kapoor and Goel (2017), board expertise (termed as busy directors) has a significant positive association with firm performance and earnings quality in India. The study collected data from the annual reports and accounts of 297 large companies listed on Bombay Stock Exchange for the years 2008 to 2013. For analysis purpose, descriptive statistics, correlation analysis, multiple regression were employed. However, the study fails to consider other important variables of board characteristics (for instance, board meetings, board tenure, and board age), board committees and risk management disclosure in examining the relationship between CG mechanisms and firm performance. Moreover, the end of the study period (2013) is not up to date, hence, the generalization of the result may be difficult since other economic activities might have occurred between 2013 to 2017. Therefore, there is the need to carry out a new study so as to overcome the setbacks identified.

Elyasiani and Zhang (2015) assess the relationship between multiple directors and performance and risk of bank holding companies in the U.S. The authors identify that multiple directorships (expertise) is positively related to the performance of bank holding companies. The performance variable is represented by earnings before interest and tax, Tobin's Q, and ROA. The data used in the study is collected from 116 bank holding companies covering the period of 2001 to 2010, and 3SLS technique is used in

analyzing the data. Despite the riskiness of banks' operations, the study did not consider the efficiency of risk management committee structure and risk management practices which might have an influence on the banks' activities.

Andreou *et al.* (2014) investigate the association between financial management (Abnormal accruals and accruals), firm performance (ROA & Inverted Q), and corporate governance in the United State Maritime industry. The result of the study reveals that the proportion of directors sitting on the boards of other companies have a positive association with firm performance and financial management decisions. The study generates its sample from 33 maritime firms quoted in the US for 12-years period (1999-2010), and multiple regression is utilized in analyzing the data. However, the study did not concentrate on risk management practice of the firms despite the amount of risk involved in maritime operations.

In another study by Dass, Kini, Nanda, and Wang (2014) who assess the role of "directors from related industries" on board of firms found that directors from other related industries have significant impact on firm performance/value, indicating that directors of firms that serve on other companies' boards enhance performance and value of firms in the US. The study obtained data from a sample of 12750 firms from *Compact Disclosure* on directors and officers spanning from 1990 to 2005. The study utilizes Tobin's Q as a measure of performance, and Probit model, OLS model, and 2SLS model are used in regressing the variables. Despite the large sample size used by the study, it ignores the risk management practices and disclosure of the sample firms. Moreover, the period used in the study need to be extended as it is conducted for the last 11 years and many changes or factors within the period might have affected the variables used.

A study by Routray and Bal (2017) shows that multiple directorships have a positive but insignificant effect on performance (Market-to-book value ratio) of listed companies in India. The researchers collected data from a sample of 123 companies listed on the Bombay Stock Exchange for the period of 2007 to 2014. Descriptive statistics, correlation analysis, and random effect regression were employed in analyzing the data. The study considers only market performance measure without incorporating accounting performance measures like ROA, ROE, and NPM. This makes the implication of the study skewed to one party (investors) and ignoring other stakeholders (for instance, managers). Moreover, the study pays less attention to board committees and risk management practice in establishing the relationship between corporate governance mechanisms and firm performance.

However, Using the sample of eight (8) firms in the Nigerian food and beverages industry, Nwonyuku (2016) finds that there is a significant negative relation between board skill and competence, and financial performance represented by ROE and net asset per share (NA/S). Data for the study is collected from the annual accounts and reports of the sampled firms for the period of 2004 to 2014, while descriptive statistics, correlation analysis, and OLS multiple regression are used in analyzing the data. However, the sample used by the study is small which will make generalization difficult. Moreover, the study has paid less attention to incorporate market performance variables to have a more robust result.

The study by Hauser (2013) found that "a reduction in director workload is associated with higher earnings, higher market to book ratios and higher pay-performance sensitivity in CEO compensation contracts. Consistent with the hypothesis that director

workload matters, the performance gains are particularly stark when directors are geographically far from firm headquarters, and when marginal value of directors' time and effort is high" (p. 1). This means that multiple directorships have a negative effect on firm's performance. Data is obtained from Risk Metrics which provides yearly board information of companies that encompass the S&P 1500, thereby having a sample of 22,465 firm-years from 1996 to 2011. Return on assets and Tobin's Q are proxies for performance, and multiple regression is used as a tool for analysis. The study use sample that involves firms that homogeneous and heterogeneous characteristics which may have an influence on the result obtained.

#### **2.10.2.2 Risk Management Committee (RMC) Structure**

The risk in business may be viewed as any expected negative consequence of an event, determined by combining the likelihood of the event occurring with the effect should it occur. In regards to this, therefore, companies need to manage risk in order to achieve their predetermined goals. However, risk management involves identifying, analyzing, and control of all related risks which may likely threaten a firm's resources, assets, or its earnings capacity (Chatterjee & Bose, 2007). Consequently, risk management is considered as one of the major facets of corporate governance, especially in the instance of financial institutions (Karatzias, 2011). Coherently, Karatzias further stresses that various financial institutions internationally do not longer exist, have been taken over, or merged due to their neglect of rudimentary guidelines of risk management and control.

Demidenko and McNutt (2010) upheld that corporate governance is generally accepted as a significant element in refining economic efficiency, that eventually standardized a company's relationship with its board, its management, its investors, and other stakeholders. The authors added that "Enterprise risk management (ERM) is a key component of corporate governance. It provides a means of realizing a company's objectives and monitoring performance of an agent by a principal. ERM can reassure the principal that their interests are being netted through the diligent and efficient behaviour of the agent" (p. 803).

Risk management committee structure has now become an important issue with a lot of emphases, and activities on risk management are regarded as part of the significant audit committee functions (Ng *et al.*, 2012). However, various corporate failures like that of Enron and WorldCom have become a challenge to the trust that shareholders placed on auditor's report, and this has cast doubt on the integrity of audit committees in monitoring and implementing programs on risk management (Bates & Leclerc, 2009). Therefore, this prompts the need for risk management committee (RMC) (which has some characteristics that encompass RMC size, RMC composition [Independence], and RMC meetings) to oversee and implement risk management programs of firms (Ng *et al.*, 2012).

Yatim (2010) states that "boards that establish a stand-alone committee that focuses solely on the risk management function demonstrates their commitment to improving the overall corporate governance structures of their firms" (p. 18). This is consistent with OECD (2015) which reports that one of the new issues in the revised OECD's Code of Corporate Governance is the function of the board of directors in areas of risk

management, internal audit, and tax planning. In the same vein, the board of directors should maintain final oversight function of the firm's risk management system, and guarantee the effectiveness of the reporting method. De Andres and Valledado (2008) contended that within a framework involving limited competition, greater information asymmetries, and intense regulation, the board turn into a significant way element to oversee managers' behavior and to offer advice on strategic identification, risk management, and implementation.

Agency theory argues that one of the ways to determine the efficacy of board of directors' information is through its subcommittees. Equally, an important mechanism that seems to enhance the oversight function of the board in order to ensure that shareholders' interests are achieved is the risk management committee, because it will add to the usefulness and greatness of boards' information (Eisenhardt, 1989). The risk management committee include elements such as; size, composition, and meetings (Tao & Hutchinson, 2013). The efficiency of risk management committee characteristics to corporation performance has been noted by prior studies (for instance., Chatterjee & Bose, 2007; Karatzias, 2011; Ng *et al.*, 2012; Pathan, 2009). Accordingly, agency theory explains the relationship between risk management structure (size, composition, meetings) and firm performance as it does to similar variables under board attributes explained earlier.

#### **2.10.2.2.1 Risk Management Committee (RMC) Size**

The Committee of Sponsoring Organizations of the Treadway Commission [COSO], (2004) state that “[An] entity's board of directors plays a critical role in overseeing an

enterprise-wide approach to risk management. Because management is accountable to the board of directors, the board's focus on effective risk oversight is critical to setting the tone and culture towards effective risk management through strategy setting, formulating high-level objectives, and approving broad-based resource allocations". Risk management has become one of the key focus to committees of companies' boards, and the finance, audit, and/or risk management committee of the board of directors generally reflects risk management (Yatim, 2010).

Theoretically, since the postulate of agency theory is primarily to solve the problem of principal-agent relationship (Eisenhardt, 1989) which reduces agency costs from separating of ownership and control (Fama & Jensen, 1983), larger board size will hinder CEO's domination of the board because directors will be in a more upright position to exercise their powers and right in governing the firm, and thereby improve performance of the company (Zahra & Pearce, 1989). For this cause, agency theory will be employed to study the relationship between risk management committee size and performance of listed financial service firms in Nigeria.

Albeit, the NCCG 2011 encourages companies' board of directors in establishing a risk management committee separate from the audit committee, but it does not specify the exact required size of a risk management committee. However, studies on the risk management committee are limited and remain inconclusive (Ng *et al.*, 2012). Pathan (2009) submits that there is a positive relationship between strong board monitoring and bank risk-taking because bank shareholders are with incentives for more risk. The author also reports that small bank boards have a positive relationship with more risk-taking.

Particularly, a study by Ng *et al.* (2012) found that risk management committee size is negatively associated with underwriting risk of insurance companies in Malaysia. The study obtained data from published financial reports of 37 insurance companies licensed (under the insurance Act 1996) in Malaysia from 2003 to 2011. For analysis purpose, Pearson's correlation, panel regression model and pooled ordinary least squares regressions are utilized in the study. One of the limitations of the study is the use of a sample from insurance companies only, and a link between risk management committee size and firm performance is not explored in the study.

Consistently, risk management committee size has significant negative relation with corporate social responsibility disclosure in Nigeria as found by Pantamee (2014). The researcher collected data from annual accounts and reports of 7 sampled firms in the Nigerian petroleum marketing industry for the period of 2008 to 2012. For analysis purpose, the author uses descriptive statistics, correlation analysis, fixed effect and random effect regressions. The limitation of the study is the use of small sample size, and there is no link between risk management committee size and firm performance.

#### **2.10.2.2.2 Risk Management Committee (RMC) Composition**

It is pertinent to mention that most national and international Codes of Corporate Governance acclaimed that boards of companies should compose a majority of non-executive directors that significantly contribute: (1) an outside perspective and greater impartiality in their judgements; (2) additional external experience and knowledge; and (3) useful contracts (International Finance Corporation, IFC, 2010). Moreover, in the United Kingdom, a report by Higgs states that one of the functions of non-executive

directors' is to be satisfied that financial report is accurate, risk management systems, and financial controls are robust and defensible (IFC, 2010).

In line with agency theory perspective, boards with significant outside directors will effectively perform their responsibility and deliver better decisions than a board that is dominated by inside directors. Moreover, non-executive directors' representation on the board increases board independence, directors' objectivity and enhances directors' expertise, so also committee composition (Fama & Jensen, 1983; Jones & Goldberg, 1982; Spencer, 1983). Therefore, it is presumed that a risk management committee with a larger number of non-executive directors will aid in influencing firm performance.

Equally important, the NCCG 2011 requires that board committees of publicly traded companies should compose of a majority of non-executive directors, and also be chaired by a non-executive director. Ng *et al.* (2012) suggest that independence (composition) of committee members is a significant instrument in corporate governance. This is because independent directors are vital in overseeing management actions (Fama & Jensen, 1983), and have no self-interest in the company, which permits them to make an objective judgement without prejudice or fear (Beasley, Carcello, Hermanson, & Lapides, 2000).

Despite the scant literature on the board risk management committee, Tao and Hutchinson (2013) empirically examine the role of risk committee and compensation committee in overseeing and managing the risk behaviour of financial firms in Australia from prior time to the period of world financial crisis (that is 2006 to 2008). The study utilizes data from an unbalanced panel of 317 financial firms quoted on the 'Australian

Securities Exchange' (ASX) 2010. Firm performance (EPS) and Risk (BETA) (that is standard deviations of stock returns) are used as dependent variables, while random effects (GLS) regression estimated alongside Huber-White (clustered-robust) are utilized in analyzing the data. The result indicates that risk committee composition is positively related with risk and firm performance. The drawback of the study is in its less emphasis to explore the risk management practice and disclosure of the financial service firms, but only dwelling on risk committee structure.

Moreover, Pantamee (2014) finds that risk management committee composition is positively associated with corporate social responsibility disclosure. As stated earlier, The researcher collected data from annual accounts and reports of 7 sampled firms in the Nigerian petroleum marketing industry for the period of 2008 to 2012. For analysis purpose, the author uses descriptive statistics, correlation analysis, fixed effect and random effect regressions. The limitation of the study is the use of small sample size, no link between risk management committee composition and firm performance.

On the other hand, Ng *et al.* (2012) find that risk management committee independence (composition) is negatively associated with underwriting risk of insurance companies in Malaysia as shown by correlation result. The study obtained data from published financial reports of 37 insurance companies licensed (under the insurance Act 1996) in Malaysia from 2003 to 2011. Pearson's correlation, panel regression model and pooled ordinary least squares regressions are utilized for analyses purpose. One of the limitations of the study is using a sample from insurance companies only, and the study also did not link risk management committee independence with performance.

### 2.10.2.2.3 Risk Management Committee (RMC) Meetings

The International Finance Corporation (2010) states that directors of companies should make sure that boards and committee meetings are well-ordered and are held on regular basis, and that director should fully participate in the meetings of the board of directors. Meeting provides an opportunity to risk management committee to freely communicate, deliberate, and attained a common goal in monitoring and control of a firm's risk (Ng *et al.*, 2012). Based on agency theory assumption, corporate boards display vibrant abilities in evaluating, penalizing, and controlling management actions, hence, enhancing the performance of firms where there is a higher frequency of board meetings (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999). Thus, the expectation is that frequent meetings of risk management committee may ensure that objectives of companies are achieved especially regarding their performance.

The frequency of meeting shows the extent effort devoted by a committee towards achieving the roles and responsibilities vested in it (Muhamad Sori, & Mohamad, 2009), and it indicates the amount of time dedicated to committee members to sanitized situations (Abdul Rahman, & Haneem Mohamed Ali, 2006). The NCCG 2011 doesn't specifically state the required frequency of risk management committee meetings but has stipulated that a member of senior management, CEO, executive directors, and head of internal audit unit should attend meetings of the risk management committee.

The frequency of meetings of risk committee has a positive and significant impact on bank performance as found by Aebi, Sabato, and Schmid (2012). This means that risk management committee that meets more frequent appears to be beneficial to the

performance of banks in the US during the financial crisis. The study obtained data from North America database (COMPUSTAT Bank) for a sample of 573 Banks for the year 2006 and a year prior to financial crisis. Return on assets and return on equity are used as performance variables, while the only result on ROE is reported because of similarity between ROA and ROE figures. For analysis purpose, descriptive statistics, t-test, and regression are used. The limitation of the study is the use of two accounting periods before the financial crisis, and events after the financial crisis are not known. Therefore, this calls for a further study in the area. In the same vein, the study only dwells on banks without considering non-banks financial institutions.

In addition, with a sample size of 7 firms from the Nigerian petroleum marketing sector, risk management committee meeting has a significant positive relationship with corporate social responsibility disclosure (Pantamee, 2014). Data was collected from the annual reports of the sampled firms through the Nigerian Stock Exchange. The descriptive statistics, correlation analysis, fixed effect and random effect regressions are used as a tool for analyses. The drawback of the study is small sample size, only petroleum marketing companies are considered, and no connection is examined between risk management committee meetings with the performance of firms.

In contrast, the study by Ng *et al.* (2012) which aimed at investigating the association between characteristics of risk management and risk taking of insurance companies in Malaysia, reported that the frequency of risk management committee meetings has no significant association with risk taking (based on correlation and multiple regression outputs). Data is obtained from published financial reports of 37 insurance companies licensed with 329 observations (under the insurance Act 1996) in Malaysia from 2003

to 2011. Pearson's correlation, panel regression model and pooled ordinary least squares regressions are utilized for analyses purpose. Yet, the study has not explored the risk management practice and disclosure of insurance companies. It also concentrates on insurance firms only without considering other financial institutions like banks, and it doesn't show any link between risk management committee meetings with firms' performance.

### **2.10.3 Risk Management Practice and Disclosure**

Shareholders of corporations are entitled to be furnished sufficiently about the extraordinary and periodic information disclosure on activities of a company (IFC, 2010). This disclosure is usually in the annual accounts and reports of companies that serve as a medium of communication between the company (management) and stakeholders for their decision making. Moreover, OECD (2015) reports that companies (not only financial sector) that have complex or huge risks (both financial and otherwise), should provide a familiar reporting system, involving direct reporting of risk management to the board of directors who are acting on behalf of shareholders.

Wong (2012) opines that risk management practices of companies particularly financial institutions are disclosed in their annual published accounts and reports, which (the reports) are subject to scrutiny by professional auditors and prepared in accordance with rules and regulations governing financial reports. In addition, Holland (1998), and Lang and Lundholm (1993) agreed that annual reports of companies are a dependable medium for shareholders and other stakeholders to assess information on risk management regarding a company.

However, the collapse of large corporations and the global economic crisis over a decade have caused a general concern and unsteadiness in the major financial markets in the world (Buckby *et al.*, 2015). The authors added that the major concern is usually criticisms on the inadequacy or inaccuracy of disclosures regarding corporate governance practices, and most especially those that are related to risk management. In this effect, Abraham and Shrives (2014) suggest that inadequate corporate disclosures have a significant effect on the investor's ability in evaluating public companies and the risks associated with them. Even though there is no consensus on the extent and manner of communicating risk management by corporations, but there is general agreement on the need to have an effective risk management disclosure (Buckby *et al.*, 2015).

The Nigerian Securities and Exchange Commission [SEC] (2011) has stated in the NCCG 2011 that the board of directors for publicly traded companies should: (1) obtain and periodically review relevant reports to confirm the continuing efficacy of the company's framework on risk management, and (2) ensure that there is adequate disclosure of the company's procedures and practices on risk management. Similarly, the Central Bank of Nigeria (2006 and 2014) has required financial firms to disclose clearly in their annual reports, the corporate governance structure and all matters related to risk management practices. Moreover, the report should also indicate the board responsibility and their role in the overall risk management process as this may improve the performance of the financial institutions.

Regarding risk management practices and disclosure by firms, agency theory was used in explaining its effectiveness because it theoretically elucidates that one of the best ways of enhancing corporate governance is to lessen the conflicting interests among

various stakeholders (Shleifer & Vishny, 1997). Consequently, since corporate directors are in a better position to acquire information on the firm's future expectations than their shareholders, enhancing the flow of information between "investor" and "investee" company will help to cushion for information asymmetry and enhance investor-relations and practice of corporate governance (J. F. Solomon, Solomon, Norton, & Joseph, 2000). The authors added that "modern portfolio theory would suggest that improving risk disclosure would, in turn, enable investors to deal more effectively with risk diversification.... Indeed, institutional investors would also require information on the unsystematic risks faced by their investee companies, so as to build up a comprehensive profile of corporate risk and to form expectations about the company as a going concern" (p. 450). In addition, agency theory postulates that disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), which ensures that information is provided in the annual reports of companies (Depoers, 2000).

Moreover, Abraham and Cox (2007) opine that contemporary portfolio theory is the premise that information about the risk of a company is significant in improving investment decisions. Agency theory suggests that in a joint-stock company, there is a divergence of interests between managers and shareholders (Jensen & Meckling, 1976), in which the shareholders require effective corporate governance to oversee the activities of corporate managers and improve accountability (O'Sullivan, 2000). In this effect, the disclosure of corporate policy stems from the board of directors, and the boards prepare annual reports because the disclosure policy of the company is expected to be influenced by the governance arrangements (Gul & Leung, 2004).

Carter, D'Souza, Simkins, and Simpson (2010), and Tao and Hutchinson (2013) are of the view that according to agency theory, boards are considered as the most important mechanism of corporate governance because characteristics of boards determine their ability to oversee and control managers' activities, provide significant information to management, ensure appropriate laws are adhered to and connect the company with the external environment which would improve the performance of a company. Agency theory also proposes that disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), which enable more incentive package for managers to provide more information in annual reports (Depoers, 2000). Therefore, agency theory will also suit this study in terms of risk management practice and disclosure, since part of the board function is to ensure adequate compliance with applicable rules and regulations and its reporting to stakeholders (Carter *et al.*, 2010; Tao & Hutchinson, 2013).

Empirically, Buckley *et al.* (2015) examine 'how listed Australian Companies disclose risk management information in annual report governance statements in accordance with the Australian Securities Exchange (ASX) corporate governance framework'. The study finds that there is an extensive deviation by companies in the disclosure practices and less conformity with principle 7 of the Australian principles and recommendations of corporate governance. This means that there is less disclosure by firms regarding "material business risk". The study also finds that board expertise, audit committee independence, board independence, and Big-4 audit firm do not have any impact on the level of risk management committee disclosure in the context of Australia. Data for the study is obtained from top 300 companies listed on the ASX based on market capitalization during the month of June 2010. The study uses regression analysis and

thematic content analysis to examine the data collected. The study is limited to one accounting period, a sample of top 300 firms only, and does not link risk management disclosure with firm performance.

Furthermore, Abraham and Shrive (2014) undertook a study to explain how best to enhance reporting of risk factors by publicly traded companies. The study uses a longitudinal approach in examining the quality of risk reporting from 4 companies in food production and processing sector listed on Northcote for the period of July 2008. To determine how disclosures of risk changed over time, the annual reports and accounts of the sampled firms from 2002 to 2007 are utilized by the study using content analysis. The finding of the study indicates that disclosures made by companies seem to be less or not related to the actual risk facing the companies, that is it can be regarded as "symbolic window dressing". Symbolic disclosures remain unlikely to provide useful information to users of financial reports who may like to make decisions regarding their investments alongside their risk appetite. The study sampled only 4 companies, therefore makes generalization difficult.

Nahar, Jubb, and Azim (2016) report that there is a significant relationship between risk disclosure, the existence of risk management committee, and a number of risk committees are significantly related with performance of banks in Australia. The dependent variable, which is performance, is proxied by return on equity, return on assets, Tobin's q, and buy-and-hold returns. Data for the study was collected using 210-year observations including hand-collected data for the 2006-2012 period, and descriptive statistics, t-test, correlation, and regression are used in analyzing such data. The study concentrates on banks only while there are other firms operating in financial

institutions-which this current study concentrates on. More so, the study was not able to assess the effectiveness of risk management committees or units. The authors recommend future researchers to include variables that capture the effectiveness of these corporate governance mechanisms, and that similar studies be carried out in countries where there is poor or no application of risk governance mechanisms.

Another study by Said Mokhtar and Mellett (2013) which aims to assess the level of voluntary and mandatory risk reporting, and examine the effect of competition, CG, and ownership structure on risk reporting, reveal that there is a low extent of voluntary risk reporting. Their finding also shows that the risk reporting distillates more on backwards-looking and qualitative risk disclosure and forward-looking and quantitative risk disclosure. The study collected data from annual reports of 105 quoted firms in Egypt for the year 2007 through unweighted disclosure index based on Egyptian Accounting Standards (EAS) 25 to measure mandatory risk disclosure and using content analysis-sentence approach to measure voluntary risk disclosure. For analysis purpose, descriptive statistics and multiple regression are used. One of the limitations of the study is the use of a single period (2007), therefore changes in companies' operations before or after the period are not captured which make generalization rare. Also, the study did not link risk reporting with the performance of the sampled firms which may help to the effectiveness of risk reporting in annual reports of the companies.

In Nigeria, Dabari and Saidin (2015) whose study aimed at investigating the level of implementing Enterprise Risk Management (ERM) in the Nigerian banking industry find that ERM is implemented by banks in Nigeria, but yet to be implemented by some. Data for the study was collected from 722 managers from 361 branches and

headquarters of the 21 banks in Nigeria, and the logistic regression model is utilized for data analysis. The study didn't explore risk management practice and disclosure, risk management committee structures, and linking them with firm performance. Collecting data from a primary source, in this case, may temper the validity of result because the responses obtained on ERM may be subjective, as companies are required to report about their risk profile in financial statements (CBN, 2015; Institute of Chartered Accountants of England & Wales, ICAEW, 2011).

Equally important, an exploratory study on risk reporting has been conducted by Amran *et al.* (2008). Their study identifies that there is no adequate disclosure of risk management by Malaysian companies. Annual reports of 100 listed companies in Bursa Malaysia are used as the sample, and content analysis was used to determine the level of risk management disclosure by the sample firms in the year 2005. Descriptive statistics, percentage, Q-Q plot, and multiple regression are used in analyzing the data collected. The study concentrates on one accounting period only, did not also focus on the level of risk management practices and disclosure with company performance.

Voluntary risk management disclosure in Malaysian firms is positively and significantly related to the firm value (Abdullah *et al.*, 2015). For the purpose of the study, the authors conducted a content analysis of a sample of 395 companies listed on Bursa Malaysia for the year 2011. Firm value is proxied by the market to book value of equity ratio, Tobin's Q, and market capitalization. In conducting analysis, descriptive statistics, correlation analysis, and panel data multiple regression are used. Nevertheless, the researchers dwell on market performance only and do not consider risk management structure of the

sampled firms. In the same line, the study focuses on one-year data and this makes the authors conclude that their study lacks generalizability to other periods of time.

However, despite the extant literature on corporate governance mechanisms most especially board structure and firm performance (e.g., Adams & Meharan, 2003; Afrifa & Tauringana, 2015; Fauzi & Locke, 2012; Fidanoski *et al.*, 2013; Joe Duke & Kankpang, 2011; Lipton & Lorsch, 1992; O'Connel & Cramer, 2010; Ogege & Boloupremo, 2014; Vafeas, 1999), risk management committee structure (e.g., Aebi, Sabato, & Schmid, 2012; Ng *et al.*, 2012; Pantamee, 2014; Tao & Hutchinson, 2013; Yatim, 2010), and risk management disclosure (e.g., Abraham & Shrive, 2014; Buckby *et al.*, 2015; Dabari & Saidin, 2015), there is limited studies on the relationship between risk management committee structure (size, composition, and meetings) and risk management practices and disclosure with firm performance especially relating to financial service institutions.

Coherently, Karatzias (2011) argues that financial crisis can work to weaknesses and failures in corporate governance practices and risk management malpractices. The author further states that system of risk management in financial firms have failed because of corporate governance processes, identification of risk and its measurement. In a call for future research, Karatzias opines that there is a need for future researchers to explore into a 'new duty of care' of companies' boards especially those of banks and other financial institutions which have significant role in an economy and also acting in the best interests of shareholders, depositors, debtholders, and other stakeholders.

Therefore, this study will examine the relationship between board of directors' attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee, composition, risk management committee meetings), and risk management practices and disclosure with performance of publicly traded financial service firms in Nigeria.

However, the summary of some previous studies on corporate governance mechanisms specifically board attribute and firm performance, is provided in the following table as thus:



**Table 2.3***Summary of Corporate Governance Mechanisms (boards), risk management, and Firm Performance Literature*

Authors	Location of Studies	Period of Study	Variables		Methods		Theory Applied	Main Result (Significance @ 5%)
			Independent	Dependent	Sample	Techniques		
Fidanoski <i>et al.</i> (2013)	Macedonia	2008-2011	Board size, Board composition, and CEO qualities	ROA, ROE, CAR, and CAIRATIO	15 banks	OLS-regression	Agency	Mixed Results: Board size and CEO qualities (+), Board composition (-) with performance.
Afrifa and Tauringana (2014)	UK	2004-2013	Board size, CEO (age & tenure), Non-executive directors, Directors' remuneration.	Tobin's Q	234 SMEs	Multiple Regression	Agency, Resource Dependence, Life cycle, and Market learning.	Board size and other IVs are significant (+) with Performance.
Fauzi and Locke (2012)	New Zealand	2007-2011	Board size, Board composition, Female directors' size, Audit, Nomination, and Remuneration committees, Managerial and Block holders' ownerships.	ROA and Tobin's Q	79 firms	GLM	Agency, Resource dependence, and Stewardship.	Board size, Board composition etc. are significant (+) with performance.

Table 2.3 (Continued) .....

Ogege and Boloupromo (2014)	Nigeria	2012	Board size, Board composition, and CG Index	ROA and ROE	15 banks	OLS-regression	Agency	Board size, Board composition, and CGI are significant (+) with performance.
Guest (2009)	UK	1981-2002	Board size, Board composition, and board ownership.	ROA, Tobin's Q, and Share returns	2746 firms	OLS-regression	Not Available	All IVs significant (-) with performance.
O'Connel and Cramer (2010)	Ireland	2001	Board size, Non-Executive Directors, and Directors' ownership.	ROA, Stock market return, and Tobin's Q.	77 firms	OLS-regression	Agency	IVs are significant (-) with performance
Marn and Romuald (2012)	Malaysia	2006-2010	Board size, Board composition, Audit committee, CEO status, and Ownership structure.	Earnings per share (EPS)	20 firms	Multiple regression	Agency	IVs are significant (-) with performance.
Yasser <i>et al.</i> (2011)	Pakistan	2008-2009	Board size, Board composition, CEO duality, and Audit committee.	ROE and Profit margin (PM).	30 firms	OLS-regression	Agency and Stewardship.	IVs are significant (+) with performance.
Harvey Pamburai <i>et al.</i> (2015)	South Africa	2012	Board size, Non-executive directors, and Board meetings.	ROA, EVA, and Tobin's Q.	158 firms	Multiple regression	Not Available	Mixed results: Board composition (+), Board size and Board meetings (-) with performance.

Table 2.3 (Continued) .....

Vafeas (1999)	Cyprus	1990-1994	Board size, Inside ownership, Independent directors, Board committee, Inside Chairman etc.	ROA and Market-to-book ratio	307 firms	OLS and 2SLS	Agency and Organizational.	IVs are significant (-) with performance.
Al-Matari <i>et al.</i> (2014a)	Oman	2014	Board size, Board Independence, Board meetings, CEO tenure, Board change etc.	ROA	81 firms	Multiple regression	Agency and Resource dependence.	IVs are significant (+) with firm performance.
Goldsmith (2012)	US	1999-2009	CEO tenure, Industry firm type, CEO tenure blocks, CEO termination, and CEO retention.	ROA and ROE	282 firms	Logit and Multiple regressions.	Agency and Stewardship.	All IVs are significant (+) with performance
Andreou <i>et al.</i> (2014)	US	1999-2010	Board size, Insider ownership, CG committees, CEO duality, and Multiple directorships.	ROA, Inverted Q, Abnormal accruals, and Accruals.	33 firms	Multiple regression	Agency and Stewardship.	All IVs are significant (+) with performance
Hauser (2013)	US	1996-2011	Board size, Board Independence, Multiple directorships,	ROA and Tobin's Q.	22, 465 firms	Multiple regression	Not Available	Multiple directorships is significant (-) with performance

Table 2.3 (Continued).....

				and CEO compensation.				
Sanda <i>et al.</i> (2011)	Nigeria	1996-2004	Board size, Multiple directorships, interlocking directorship, and family members on board.	ROA, ROE, P/E ratio, and Stock returns.	89 firms.	Multiple regression	Agency and Stakeholder.	Board size, CEO tenure etc. are significant (+) with performance
Kyereboah-Coleman (2008)	Nigeria, Ghana, South Africa, and Kenya	1997-2001	CEO tenure, Boards activity, Audit committee size and meetings, Institutional shareholdings.	ROA and Tobin's Q.	103 firms	Random effects, Fixed effects, and OLS.	Agency theory	CEO tenure is significant (-) with performance
Ng <i>et al.</i> (2012)	Malaysia	2003-2011	Risk management committee, size and independence.	Underwriting risk taking	37 firms	Panel and Poole regression.	Resource dependence theory.	RMCS is significant (-) with underwriting risk taking.
Aebi <i>et al.</i> (2012)	US	2006 prior to 2007/2008 financial crisis	Chief Risk Officer, Risk committee, Board size, and Board independence.	ROA and ROE	573 Banks	t-test and Multiple regression.	Not Available	RMC is significant (+) with performance
Buckby <i>et al.</i> (2015)	Australia	2010	Risk committee, Board Independent, MTB ratio, Leverage, Board expertise,	Risk management disclosures practices	300 firms	Content Analysis and OLS-regression	Agency	No adequate disclosure of risk related activities.

Table 2.3 (Continued).....

			BETA, Technology committee, and Big-4 auditor.				
Abraham and Shrives (2014)	Northco te	2002-2007	News events on key risk factors, involving negative and positive events.	Voluntary risk management disclosure	FTSE 100	Content analysis	Agency, Institutional, and Proprietary cost.  No adequate disclosure of risk activities.

Source: Developed by the author of this study.



## 2.11 Chapter Summary

This chapter discusses the overview of Nigerian economy, the underpinning theories (that is., agency theory and resource dependence theory), literature on performance, corporate governance, risk management practices. The chapter starts by stating the background of Nigeria in terms of political and economic overview and presents a map that shows the six geopolitical zones in Nigeria. Additionally, the chapter furthers by illustrating the structure of Nigerian financial system, regulatory agencies in the Nigerian financial sector, institutional development in the Nigerian financial sector with key challenges facing the sector. Besides, the performance of the Nigerian financial institutions in the Nigerian Stock Exchange (NSE), development of corporate governance in Nigeria, and regulations governing financial institutions practice in Nigeria is providing in the chapter. Moreover, underpinning theories of this study (agency and resource dependence), the concept of corporate performance and its measurements are discussed, where accounting-based and market-based performance measures are considered. The chapter also looks at the concept of corporate governance, mechanisms of corporate governance like board attributes (board size, board composition, board meetings, CEO tenure, and board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meetings), and risk management practices and disclosure.

## **CHAPTER THREE**

### **RESEARCH FRAMEWORK AND METHODOLOGY**

#### **3.1 Introduction**

The preceding chapter provides the background of the Nigerian economy, explain related theories to the study, reviews the relevant literature of previous studies concerning corporate governance mechanisms (board of directors' attributes, risk management committee structure, and risk management practices and disclosure) and firm performance. This present chapter provides the theoretical framework of the study as well as the formulation of hypotheses on the basis of related theories and evidence from the empirical review. The subsequent sections provide the operational definition, measurement of study variables, the research methodology pertaining data collection, sampling, data collection procedures, and techniques of data analysis. Finally, a summary of the chapter is provided in the last section.

#### **3.2 Research Framework**

This study utilizes agency theory and resource dependence theory in order to essentially examined the relationship between corporate governance mechanisms and firm performance. The theories assist in highlighting different hypotheses relating corporate governance mechanisms and firm performance. Nevertheless, agency theory explains agency problem and reconciles the conflicting interests between agents (corporate managers) and principals (shareholders) (Eisenhardt, 1989). Agency costs ascend in a situation when multiple parties are involved in realizing a particular objective or task

(Jensen & Meckling, 1976), and agency problems come up for the reason that contracts are not costlessly recorded and imposed (Fama & Jensen, 1983).

Controlling agency problem becomes indispensable in the decision-making process of a company since the decision makers (corporate managers) are not its residual claimants of organizational resources, they may probably take actions or decisions that differ from interests of the main residual claimants (shareholders) (Fama & Jensen, 1983). In this effect, agency theory helps in resolving the problems occurring in an agency relationship. Eisenhardt (1989) stresses that agency theory dwells in solving two problems in agency relationship. The first is "the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify what the agent is actually doing. The second is the problem of risk sharing that arises when the principal and agent have different attitudes toward risk" (p. 58).

Moreover, Fama and Jensen (1983) argued that there is need of a system that can be used to differentiate between decision control and decision management of firms which will help to reduce agency costs through control of management power and assuring an appropriate attention to stockholders' interests. The required system as opined by Fama and Jensen is corporate governance, which is a system that safeguard and promote the rights of stockholders and other stakeholders. This is also consistent with agency theory assertion which aims to reduce agency costs and ensures that the interests of resources providers (shareholders) are met (Jensen & Meckling, 1976). Consequently, Fama (1980), McKnight and Weir (2009), Shleifer and Vishny (1980), and Williamson (1984) proclaimed that the internal and external mechanisms of corporate governance can help

to mitigate agency problem, curtail unscrupulous behaviour of agents, and reduce agency costs, hence, enhances corporate performance.

Agency theory illustrates the relationship between owners of resources (shareholders) and management (agents), and significantly ensures the separation of ownership functions and control so as to improve owners-managers' relationship, which as a result enhance corporate performance and value (Jensen & Meckling, 1976). Lefort and Urzua (2008) highlight that corporate board is considered as the key among the main mechanisms of corporate governance that provides an oversight function and tackles agency problems.

Agency theorists contend that a significant role for the board of directors is effective monitoring of management activities on behalf of shareholders which can reduce agency costs and enhances firm performance (Hillman & Dalziel, 2003). Board of directors are considered as key players in safeguarding shareholders' resources and their interests, and assist in resolving agency problems existing in organizations (Hermalin & Weisbach, 2003). Consistently, Fama (1980), Mizruchi (1983), and Zahra and Pearce (1989) reported that monitoring role by corporate boards can lessen agency costs inborn in the ownership and control separations, hence, increases firm performance.

In addition, Fama and Jensen (1983) express the opinion that the main function of the board is aimed at reducing agency costs, increases information disclosure that work for the stakeholders and serves to enhance the interests of shareholders. Furthermore, boards' role can be enhanced via provision of information by the board, its structures

and size that helps to improved strategic plans and decision-making processes of a firm and its performance (Abdullah, 2004).

In contrast to the agency theory, resource dependence theory is primarily aimed to link the organization with the external environmental ties and provides the organization with the required human capital to effectively and efficiently oversee the management function. This is because resource dependence theorists assess how board of directors' capital paves the way for adequate manning of capitals (human resources) to the firm (Hillman & Dalziel, 2003).

Specifically, resource dependence theory postulates that corporations operate in an environment that have a significant number of external elements which may leads to uncertainty and poses external dependencies (Dalton, Daily, Johnson, & Ellstrand, 1999). As such, organizations should effectively deal with the factors leading to the uncertainties so as to be successful in the uncertain competitive economic environment. In this effect, corporate directors function as a link between the firm and environmental uncertainties, and assist the firm in dealing with the said factors for better decision making (Pfeffer & Salancik, 1978).

Equally important, Zahra and Pearce (1989) assert that board of directors do not only provide a significant connection to other firms, but also ensures a favourable transaction is carried out among firms. In the same vein, Pfeffer (1972) states that the function of corporate board is to acquire firm's resources based on the relationship they established with friendly firms. As a result, the board ensures a considerable increase in coordination among firms, promotes access to vital information and other resources,

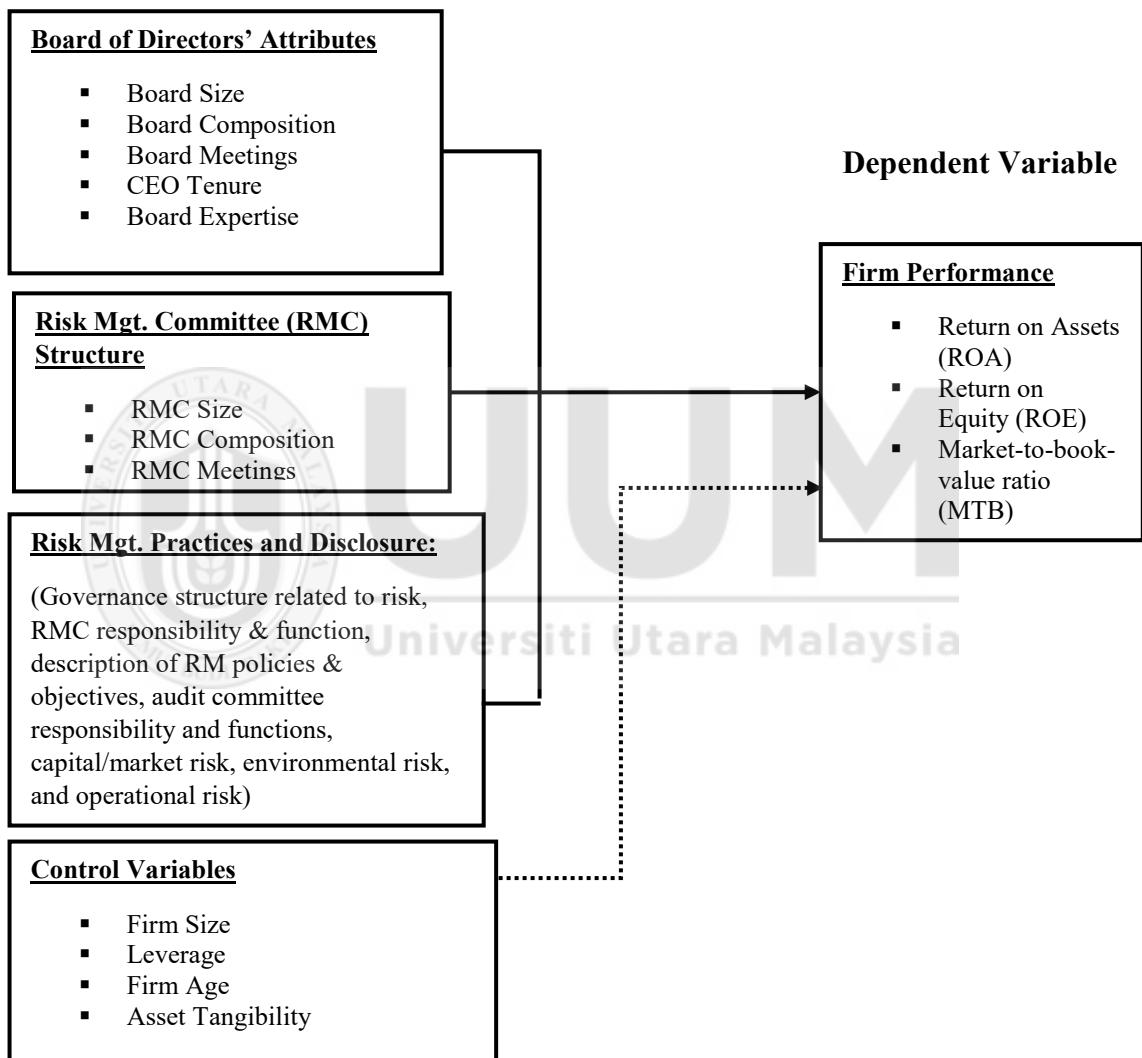
assist in reducing uncertainty and transaction costs, and aid in enhancing firm performance (Bazerman & Schoorman, 1983; Boyd, 1990).

Correspondingly, corporate directors ensure effective and efficient operations of firms and also confirm that the interests of shareholders are met and performance increases (Coles & Jarrel, 2001). As an illustration, empirical evidence from resource dependence theory has shown that there is a significant relationship between board capital and performance of firms (e.g., Boyd, 1990; Johnson & Greening, 1999; Pfeffer, 1972). Yet, the findings are inconclusive and fragmented based on the empirical review in the previous chapter.

Therefore, this study integrates agency theory and resource dependence theory to examine the relationship between corporate governance represented by board attributes (board size, board composition, board meeting frequency, CEO tenure, and board expertise), risk management committee structure (RMC size, RMC composition, and RMC meetings), risk management practices and disclosure and performance (ROA, ROE, and market-to-book-value ratio [MTB]) of listed financial service firms in Nigeria. The integration of the two theories is important because Hillman and Dalziel (2003) state that “integrating examinations of monitoring and the provision of resources and their antecedents is important for practitioners, because directors engage in both functions”. In significant way, the authors further claim that “integration of monitoring and the provision of resources will not only more accurately reflect the real world but also may overcome theoretical weaknesses in choosing one approach over another” (p. 388).

Consequently, with the integration of agency theory and resource dependence theory, this study attempts to accomplish its objectives and provide answers to its research questions via the research framework established as shown in Figure 3.1.

### Independent Variables



**Figure 3.1**

*Research Framework*

### **3.3 Research Hypotheses**

This section discusses the hypotheses of this study for the purpose of assessing the relationship between corporate governance mechanisms as board of directors' attributes (board size, board composition, board meetings, CEO tenure, board expertise), risk management committee structure (RMC size, RMC composition, RMC meetings), risk management practices and disclosure and performance of financial service firms listed on the Nigerian Stock Exchange. The development of the hypotheses is based on the theoretical framework in Figure 3.1 and previous literature on several corporate governance dimensions and firm performance. The hypotheses will control and guide the study to a logical conclusion.

#### **3.3.1 Board of Directors' attributes and Firm Performance**

##### **3.3.1.1 Board Size and Firm Performance**

Board size is viewed as the amount of board of directors of a company and is considered as the most fundamental dimension of board features due to fragmented views in the literature regarding it (Kakanda *et al.*, 2016a). John and Senbet (1998) claim that corporate board of directors is regarded as the fundamental element of corporate governance and is the primary means through which the shareholders can control top executive activities indirectly. However, Adams and Mehran (2003) notified that a required number of board members of a company relies on the industry type, age, and company size, as board size in the banking industry is found to be larger than board size in the manufacturing industry. To this end, the number of the company board of directors should be between seven and eight (Lipton & Lorsch, 1992). In the same mark, Jensen

(1993) views that when a number of board members exceed seven or eight, their functions will become less effective. However, the NCCG 2011 has required publicly traded companies to have a minimum size of 5 members on board but did not specify the maximum number required because this depends on organizational complexity and requirement. This reflects that board size should be optimal, rather than smaller in size to function effectively.

Consistently, it has been contended that a larger board size leads to diversity that would assist corporations to safeguard their resources and lessen uncertainties in environments, enhance directors' oversight function, and guarantee effective decisions by management (Pearce & Zahra, 1992; Pfeffer, 1987; de Villiers, Naiker, & van Staden, 2011). In addition, the diversity in extra resources emanates from an increase in board size because of various individual interactions in both internal and external boundaries of the company by board members (Eulerich *et al.*, 2014). Abdullah (2004) maintains that a board with a reasonably large size will be more capable to monitor the actions of top management. Zahra and Pearce (1989) conclude that larger board size will hinder CEO's domination of the board because directors will be in a better position to exercise their powers and right in governing the firm, and thereby improve performance a firm.

In line with the agency theory, a larger board size ensures an effective and efficient monitoring of management which reduces the power of the CEO on corporate board of directors and therefore enhances firm performance (Singh & Harianto, 1989). Again, based on resource dependence theory which aims at provision of intangible resources by board of directors to the firm (Hillman & Dalziel, 2003), so as to enhance firms'

performance (Kiel & Nicholson, 2003), the size of boards is expected to contribute to better operations and performance of companies

Nonetheless, despite the empirical evidence concerning the impact of board size on corporate performance, the findings still remain inconclusive because of mixed findings. For instance, Suhail *et al.* (2017) found that board size has a significant positive impact on the performance of listed firms in Pakistan. Fidanoski *et al.*, (2013) opine that board size is positively related to performance (ROA and Cost-Income ratio) of banks in Macedonia. Likewise, Ogege and Boloupromo (2014) found that board size has a significant positive relationship with financial performance (ROA and ROE) of Deposit Money Banks (DMBs) in Nigeria. Moreover, Afrifa and Tauringana (2015) examined the impact of corporate governance mechanisms on the performance of listed Small and Medium Enterprises (SMEs) in the UK and found that board size is positively related to performance. Additionally, other studies that found a positive relationship between board size and firm performance are but not limited to: Al-Najjar (2013), Anderson, Mansi, and Reeb (2004), Arslan, Karan, and Eksi (2010), Chahine and Safieddine (2011), Coles, Daniels, and Naveen (2008), Galbreath (2010), Khan and Javid (2011), Larmou and Vafeas (2010), LI, Kankpang, and Okonkwo (2012), Saibaba and Ansari (2013), Yasser *et al.*, (2011).

Expressively, Abdurrouf (2011), Nanka-Bruce (2011), and Yermack (1996) reported that a significant increase in board size leads to interruption and delay in the decision-making process, management, communication, crafts additional conflicting interests between shareholders and executives, and diminishes the moral of majority members which finally affects firm performance. In like manner, Jensen (1993) points out that

smaller board is more effective than larger board because a significant increase in board size may lead to meaningless discussions alongside difficulties in coordination and decision making.

There are other studies that found that board size to be negatively related to firm performance, for instance; Guest (2009) whose study examined the effect of board size on the performance of UK listed firms found that board size has significant negative effect on firm performance measured by profitability, share returns, and Tobin's Q. in the same line, O'Connel and Cramer (2010) also found that board size has negative impact on performance after assessing the association between board characteristics and performance of listed firms on Irish Stock Market (ISM) Ireland. Furthermore, other studies that found a negative relationship between board size and firm performance include; Ali and Nasir (2014), Chang and Duta (2012), Chechet, Jnr., and Akanet (2013), Cheng (2008), Conyon and Peck (1998), Dahya, Dimitrov, and McConnell (2008), Eisenberg, Sundgren, and Wells (1998), Hermalin and Weisbach (2003), Liang *et al.*, (2013), Mollah and Talukdar (2007), Nanka-Bruce (2011), Singh and Davidson (2003), Vafeas (1999), Yermack (1996) among others.

As a result of the foregoing discussions, and based on the recommendation by the NCCG 2011 that board size should be of optimal size, alongside the assertion of agency theory that, a larger board size ensures an effective and efficient monitoring of management which reduces the power of the CEO on corporate board of directors, resource dependence theory which aims at provision of intangible resources by board of directors to the firm, and therefore enhances firm performance, this study, therefore, hypothesized that:

*H<sub>I</sub>: Board size has a positive relationship with firm performance.*

*H<sub>Ia</sub>: Board size has a positive relationship with ROA.*

*H<sub>Ib</sub>: Board size has a positive relationship with ROE.*

*H<sub>Ic</sub>: Board size has a positive relationship with MTB.*

### **3.3.1.2 Board Composition and Firm Performance**

Kakanda *et al.* (2016a) report that “board composition is the number of non-executive directors on board of a company” (p. 174). Marn and Romuald (2012), and Yasser *et al.*, (2011) opined that board composition is the ratio of non-executive directors to total directors serving on the board of a company. It is reputed that corporate board with a significant number of outside directors may perform their functions effectively and contribute significantly to better decision making than the board of a company dominated by inside directors (Kakanda *et al.*, 2016a). Similarly, representation of non-executive directors on a corporate board increase (1) board independence; (2) directors' objectivity and boost directors" proficiency (Fama & Jensen, 1983; Jones & Goldberg, 1982; Spencer, 1983). Moreover, the involvement of non-executive directors in controlling and overseeing any abnormal activities by the management reduces agency costs and finally enhances firm performance (Le, *et al.*, 2006). Contrarily, Geneen (1984), and Vance (1983) argued that outside directors have no adequate time, knowledge and skills to perform the functions required of them effectively.

The NCCG 2011 has recommended that publicly traded companies should have a board comprising of both executive (inside) and non-executive (outside) directors so as to be independent of the management and carry out oversight function effectively. This means

that a company that has a board of directors dominated by non-executive directors may become independent of the management and functions more effectively.

Based on agency theory perspective, a corporate board that is dominated by a large number of nonexecutive directors are in a better position to in the best interest of shareholders and improve firm performance via effective oversight functions on the management (Hermalin & Weisbach, 1988). Similarly, as an assumption of resource dependence theory, companies that invite and appoints powerful community members into their boards acquired vital resources from the external environment which may lead to performance increase (Provan, 1980).

However, despite the extant literature that examined the relationship between the composition of the board of directors and firm performance, yet the results are inconclusive because of conflicting findings. In this effect, some studies found that board composition is positively related to firm performance. case in point, Ali *et al.* (2017) examine the relationship between CG and performance (ROA and ROE) of peer firms in Pakistan and found that board composition has a significant positive effect on firm performance. Harvey Pamburai *et al.* (2015) investigate the association between CG mechanisms and performance of firms in South Africa and the result shows that composition of the board of directors (non-executive directors) is positively related to firm performance. Paul *et al.*, (2015) also found that board composition has significant positive relation with performance of microfinance banks in Nigeria. More so, Chechet *et al.*, (2013) found that board composition has significant positive effect on the performance of Deposit Money Banks in Nigeria.

Similarly, other studies that found a positive association between board composition and performance of firms are Abdurrouf (2011), Agrawal and Knoeber (1996), Ali and Nasir (2014), Baysinger and Hoskisson (1990), Bhagat and Bolton (2009), Bozcu (2011), Chaghadari (2011), Chamberlin (2010), Chiang and Lin (2011), Connelly and Limpaphayom (2004), Galbreath (2010), Haniffa and Hudaib (2006), Juras and Hinson (2008), Nanka-Bruce (2011), Nuryana and Islam (2011), Saibaba and Ansari (2011), Sheikh & Wang (2012), Yasser *et al.*, (2011), Yermack (1996).

Contrarily, some studies that found board composition to be negatively related to firm performance include Narwal and Jindal (2015) who undertook a study in the Indian textile industry and found that board composition is not positively related to firm performance. Furthermore, Marn and Romuald (2012) examined the effect of Corporate governance and firm performance in Malaysia, and their result indicates that composition of the board of directors has no significant effect on performance (earnings per share). This finding is also consistent with the study by Latif *et al.*, (2013) in Pakistan. In the same vein, studies that belong to this group include Bhagat and Bolton (2008), Bozec (2005), Chahine & Safieddine (2011), Chang (2009), Ghabayen (2012), Irina and Nadezhda (2009), Jermias and Gani (2014), Khan and Javid (2011), Pan, Lin, and Chen (2012), Singh and Gaur (2009), Switzer and Tangb (2009), Wang and Oliver (2009). While other studies that found an insignificant relationship between board composition and firm performance are Chaghadari (2011), Ghazali (2010), Kajola (2008), and Wei (2007).

Based on the above supportive arguments from empirical findings, and based on agency theory and resource dependence theory that a board dominated by a large number of

non-executive directors stand a better chance to be more effective and acquire vital resources from the external environment, this study suggests the following hypothesis:

*H<sub>2</sub>: Board composition has a positive relationship with firm performance*

*H<sub>2a</sub>: Board composition has a positive relationship with ROA*

*H<sub>2b</sub>: Board composition has a positive relationship with ROE*

*H<sub>2c</sub>: Board composition has a positive relationship with MTB*

### **3.3.1.3 Board Meetings and Firm Performance**

The board meeting is viewed as "the gathering of directors on the board to discuss issues regarding the company" (Kakanda *et al.*, 2016a, p. 174). Equally, board meetings serve as a means or avenue for making effective decisions of a firm. It is measured as the number of meetings during a year by a company board of directors (Al-Matari *et al.*, 2014a; Chechet *et al.*, 2013; Vafeas, 1999). Board meetings attendance is the basic medium via which board of directors obtained vital information needed to carry out their functions (Das & Dey, 2016). Khan and Javid (2011), and Pearce and Zahra (1992) stress that the more the number of meetings, the better for a company, for the reason that the boards stand a better chance of making a decision. In a link to this, the NCCG 2011 recommends that board of quoted companies in the country should meet at least once every quarter (that is 4 times a year) in order to effectively perform its oversight function and monitor the performance of management.

Equally important, the board meeting is an important resource for improving the effectiveness of the board of directors (Conger *et al.*, 1998), and the more frequency of board meeting, the more probability to achieve greater performance by firms (Lipton &

Lorsch, 1992). Coherently, Hsu and Petchsakulwong (2010) state that the effectiveness of the board of directors depends on its meeting frequency which can improve firm performance because boards will have great opportunity to perform an oversight function on the activities of management. Therefore, default in attending board meetings may amount to unsuitable counselling by the board of directors regarding strategic decisions of a firm, alongside bring about ineffective monitoring and oversight function of the board (Das & Dey, 2016).

In line with agency theory, it is presumed that frequency of board meetings may ensure that objectives of companies are achieved, especially their performance. Likewise, agency theory assumes that with frequency meetings, boards exhibit significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the performance of firms (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999).

Nevertheless, prior studies that try to examine the relationship between board meetings and performance of firms end-up in mixed findings. For example, Arora and Sharma (2016) found that board meeting frequency significantly and positively influences the performance of quoted firms in India. More so, Liang *et al.* (2013) examine the impact of board characteristics on performance and asset quality of banks in China. The study finds that board meeting has a positive and significant effect on asset quality and performance (ROA and ROE) of banks. Likewise, Barisua *et al.* (2012) found that board meeting has significant positive effect on performance (EPS and NPM) of banks (DMBs) in Nigeria. This is in consensus with Al-Matari *et al.* (2014a) who found that board meeting frequency has a positive relationship with performance (ROA) of firm

quoted on the Muscat Security Market (MSM) in Oman. Additionally, other stream of studies that found board meetings to be positively related to firm performance are Brown and Caylor (2004), Gavrea and Stegerean (2012), Kang and Kim (2011), Khan and Javid (2011), Khanchel (2007), Mangena and Pike (2005), Sahu and Manna (2013).

Notwithstanding, some studies found board meeting frequency to be negatively related to firm performance. In this regard, Vafeas (1999) examines the relationship between board meeting frequency and performance of firms in Cyprus and found that board meeting is negatively related with performance. Harvey Pamburai *et al.* (2015) investigate the association between CG mechanisms and performance of firms in South Africa and found a negative association between board meeting frequency and performance (ROA, EVA, and Tobin's Q). while Jackling and Johl (2009) who examined the association between CG internal features and financial performance (ROA) of firms in India found that board meeting has no significant relation with performance. Other studies belonging to this set include; Donashana and Ravivathani (2014), Garcia-Sanchez (2010), Kamardin (2009), Kyereboah-Coleman (2008).

As a result of the empirical supports presented, and based on the agency theory that frequency of board meetings allows the board to perform their oversight functions that will ensure the attainment of a company's objective, this study proposes the following hypothesis:

*H<sub>3</sub>: Board meeting frequency has a positive relationship with firm performance.*

*H<sub>3a</sub>: Board meeting frequency has a positive relationship with ROA.*

*H<sub>3b</sub>: Board meeting frequency has a positive relationship with ROE.*

*H<sub>3c</sub>: Board meeting frequency has a positive relationship with MTB.*

### 3.3.1.4 CEO Tenure and Firm Performance

The tenure of a company's chief executive officer has been an important element for research concerning executive and organization leadership (Simsek, 2007). Coupled with this, Chief Executive Officers (CEOs) that hold office for a longer time period is predictable to perform better compared to those CEOs who have been in office for a shorter time period. They further argued that longer tenure assists the CEO to develop a good relationship with stakeholders, alongside having a good plan and implement a long-term strategy that will improve performance and operational efficiency of the company (Afrifa & Tauringana, 2015). Kyereboah-Coleman (2008) argues that the longer period a CEO of a firm serves in office, the better for the shareholders' interest to be achieved, and the significant relationship between CEO tenure and firm performance, the better a firm's value (Tsai *et al.*, 2006).

Regarding the recommendation by the NCCG 2011 and provisions of the CAMA (1990), all directors of publicly traded companies should be due for re-election at regular intervals of at least once every three (3) years. This is specifically referring to executive directors (including the CEO) because the NCCG 2011 requires that “non-executive directors should serve for a reasonable period on the board”. This means that CEOs should hold office for a term of three (3) years subject to re-election at the Annual General Meeting (AGM) of a company.

On the basis of theoretical view point, Chief Executive Officers (CEOs) that hold office for a longer time period is predictable to perform better compared to those CEOs who have been in office for a shorter time period, hence, help to improve efficiency and

performance of companies (Afrifa & Tauringana, 2015). Likewise, resource dependence theory is in support of CEO's longer tenure because on the opinion of Pfeffer and Salancik (1978) "executive succession is itself one strategic response to environmental contingencies" (p. 248). This means that a long tenured CEO may have a better understanding of the environment in which the organization is operating and may help to have better strategic plans for organizational success.

Albeit, there are various studies that investigate the association between the tenure of a CEO and firm performance, yet their findings are conflicting because some found positive relationship while others found a negative relationship. For instance, Kyereboah-Coleman (2008) found that CEO's tenure enhances a firm's profitability. That is CEO tenure has significant positive impact on profitability (ROA and Tobin's Q) of firms in Africa. Alike, Al-Matari *et al.* (2014a) found that CEO tenure has a positive but not significant impact on firm performance (represented by ROA) of listed companies in Muscat Security Market (MSM) in Oman. In Nigeria, Sanda *et al.* (2011) found that the tenure of the chief executive officer has significant positive effect on firm performance (ROA, ROE, P/E ratio, and stock returns). Goldsmith (2012) finds that CEO tenure has significant positive impact on the performance of US financial service firms. Other studies that found a positive relationship between CEO turnover and firm performance include Goldsmith (2012), Herly and Sisnuhadi (2011), Koufopoulos, Zoumbos, Argyropoulou, and Motwani (2008), and Simsek (2007).

Contrarily, a negative relationship between CEO tenure and performance of firms has been recorded by studies such as that of Kyereboah-Coleman and Osei (2008) who found that tenure of CEO has a negative relation with the profitability of micro finance

institutions (MFIs) in Ghana. Belkhir (2009) also finds that tenure of CEO has significant negative relation with firm performance in the banking industry in United Arab Emirates (UAE). Similarly, Afrifa and Tauringana (2015) that examined the impact of corporate governance mechanisms on the performance of listed SMEs in the UK found a negative relationship between CEO tenure and performance. Studies that also belong to this group involve; Al-Matari *et al.* (2012), Evans, Nagarajan, and Schloetzer (2010), Limbach, Schmid, and Scholz (2015), and Maury (2006).

Therefore, on the basis of empirical evidence with corporate governance recommendations, and based on resource dependence theory and agency theory that a long tenured CEO will be more acquaintance with the organization and its economic environment which will help to improve performance, this study hypothesized that:

*H<sub>4</sub>: CEO tenure has a positive relationship with firm performance.*

*H<sub>4a</sub>: CEO tenure has a positive relationship with ROA.*

*H<sub>4b</sub>: CEO tenure has a positive relationship with ROE.*

*H<sub>4c</sub>: CEO tenure has a positive relationship with MTB.*

### **3.3.1.5 Board Expertise and Firm Performance**

Board expertise is imperative in ensuring that the oversight function of the board is successfully carried out (Yatim, 2010). Nadarajan *et al.* (2015) argued that directors that sit on the board of more than one company will enable them to acquire more skill, knowledge, and become more expertise in carrying out their oversight functions on managers' activities. A director that serves on multiple boards is often referred to as

'busy director' (Andreou *et al.*, 2014), and is considered as a measure of expertise and competency of the board which can enhance firm performance.

Busy directors are likely to gain experience with various issues facing public firms and are also likely to acquire a broader linkage of contacts (Coles, Daniel, & Naveen, 2102; Hellman & Puri, 2002; Stuart & Yatim, 2010). To Ashbaugh-Skaife *et al.* (2006), Fama and Jensen (1983), and Field *et al.* (2013) stressed that directors serving on various boards (multiple directorships) are probable to become experts, acquire more skills and experience for better decisions that can improve firms' performance.

However, the CG code issued in Nigeria by the Securities and Exchange Commission in 2011, has recommended on board expertise (multiple directorships) of publicly traded companies that:

"There should be no limit on the number of concurrent directorships a director of a company may hold. However, concurrent service on too many boards may interfere with an individual's ability to discharge his responsibilities, the Board and the shareholders should, therefore, give careful consideration to other obligations and commitments of nominees in assessing their suitability for appointment to the Board" (p. 16).

Theoretically, resource dependence theory argues that directors holding multiple positions on several boards rely on external resources that assist the firm in having access to external linkages and resources that can ensure effective and efficient business operations which finally enhances firm performance (Kiel & Nicholson, 2003). Equally, proponents of resource dependence theory argue that directors serving on boards of more than one company will have more experience and become valuable to organizational success (Boyd, 1990).

In order to assess the relationship between board expertise and firm performance, several empirical studies are conducted that end-up having opposite results. One group of studies found that positive association exists between board expertise and performance of firms in various nations. For illustration, Kapoor and Goel (2017), report that board expertise has a significant positive association with firm performance and earnings quality in India. In the same token, Andreou *et al.* (2014) found that the proportion of directors sitting on the boards of other companies have a positive association with firm performance and financial management decisions in the United State. Moreover, the result of Dass *et al.* (2014) is consistent with Andreou *et al.* (2014) because their study finds that directors from other related industries have a significant impact on firm performance/value (Tobin's Q) in the US.

Coherently, Elyasiani and Zhang (2015) found that multiple directorships (expertise) is positively related to performance (earnings before interest and tax, Tobin's Q, and ROA) of bank holding companies in the United State. Relatively, other studies supporting this finding are; Ashbaugh-Skaife *et al.* (2006), Boyd (1990), Burt (1984), Fich and Shivdasani (2006), Hillman and Dalziel (2003), and Kiel and Nicholson (2003).

In opposite to positive findings between board expertise and firm performance, other studies arrived at a negative relationship. Nwonyoku (2016) finds that there is a significant negative relation between board skill and competence, and financial performance (ROA and NA/S) of food and beverages industry in Nigeria. To this like, Hauser (2013) found that when directors serve on less board it will reduce their workload thereby increasing earnings and market value. That is multiple directorships

leads to decrease in earnings and market value. Other studies supporting these findings are; Bhagat and Black (1999), Field *et al.* (2013), and Klein (1998).

After scrutinizing the findings of previous studies and the assertion of resource dependence theory that directors holding multiple positions on several boards rely on external resources that assist the firm in having access to external linkages and resources that can ensure effective and efficient business operations which finally enhances firm performance, this study suggests the following hypothesis:

*H<sub>5</sub>: Board expertise has a positive relationship with firm performance.*

*H<sub>5a</sub>: Board expertise has a positive relationship with ROA.*

*H<sub>5b</sub>: Board expertise has a positive relationship with ROE.*

*H<sub>c5</sub>: Board expertise has a positive relationship with MTB.*

### **3.3.2 Risk Management Committee (RMC) Structure and Firm Performance**

#### **3.3.2.1 RMC Size and Firm Performance**

Risk management is considered as one of the major facets of corporate governance, especially in the instance of financial institutions (Karatzias, 2011). It has been argued that "Boards that establish a stand-alone committee that focuses solely on the risk management function demonstrates their commitment to improving the overall corporate governance structures of their firms" (Yatim, 2010, p. 18). The efficiency of risk management committee characteristics to corporation performance has been noted by prior studies (for instance., Chatterjee & Bose, 2007; Karatzias, 2011; Ng *et al.*, 2012; Pathan, 2009). However, Subramaniam *et al.* (2009) have reported that empirical

evidence on RMC and factors associated with it remains little in literature. This is also consistent with Ng *et al.* (2012) who opined studies on the risk management committee are limited and remain inconclusive. According to agency theory postulate, larger board committee size will hinder CEO's domination of the board because directors will be in a more upright position to exercise their powers and right in governing the firm, and thereby improve the performance of the company (Zahra & Pearce, 1989).

Even though the NCCG 2011 has recommended companies' board of directors in establishing a risk management committee separate from the audit committee, but it does not specify the exact size required by a risk management committee. The size of board RMC should be based on complexity and requirements of the company. To this end, Subramaniam *et al.* (2009) said “it can be argued that a larger board is likely to entail more resources for the board to allocate. For example, the larger the number of board members on the board, the greater the opportunity to find directors with the necessary skills to coordinate and be involved in a sub-committee devoted to risk management” (p. 324).

Despite the limited empirical evidence on the association between RMC and firm performance, there are few studies that found conflicting results regarding it. In this manner, Pathan (2009) submits that small bank boards have a positive relationship with more risk-taking in the United States ‘bank holding companies’. Tao and Hutchinson (2013) substantiate that “the efficacy of the risk committee (RC) and compensation committee (CC) in monitoring and identifying excessive risk-taking depends on the composition and size of RC and CC which, in turns, leads to better performance” (p. 88). Whereas, a study by Ng *et al.* (2012) found that risk management committee size

is negatively associated with underwriting risk of insurance companies in Malaysia. In consensus to this, Pantamee (2014) found that risk management committee size has significant negative relation with corporate social responsibility disclosure in Nigeria.

Consequently, the NCCG 2011 has required that the size of board committees of publicly traded companies be of optimal size. Thus, this study finds it reasonable that an optimum board committee size may lead to an effectiveness of the committee members in performing their functions effectively. In this effect, this study proposes the following hypothesis:

*H<sub>6</sub>: RMC size has a positive relationship with firm performance.*

*H<sub>6a</sub>: RMC size has a positive relationship with ROA.*

*H<sub>6b</sub>: RMC size has a positive relationship with ROE.*

*H<sub>6c</sub>: RMC size has a positive relationship with MTB.*

### **3.3.2.1 RMC Composition and Firm Performance**

Board composition is also referring to as the percentage of the executive (inside) and non-executive (outside) directors on a company's board (Akbar, 2015). Fama and Jensen (1983) opined that boards with significant outside directors will effectively perform their duty and have better decisions than a board that is dominated by inside directors. As a matter of fact, non-executive directors' representation on the board increases board independence, directors' objectivity and enhances directors' expertise (Jones & Goldberg, 1982; Spencer, 1983). On the basis of agency theory, a board that is dominated by a large number of nonexecutive directors are in a better position to the best interest of shareholders, and improve firm performance via effective oversight

functions on the management (Fama & Jensen, 1983; Hermalin & Weisbach, 1988; Jones & Goldberg, 1982; Spencer, 1983).

Nonetheless, the NCCG 2011 requires that board committees of publicly traded companies should compose of a majority of non-executive directors, and also be chaired by a non-executive director. The International Finance Corporation (2010) stresses that Higgs report in the United Kingdom states that that one of the functions of non-executive directors' is to be satisfied that financial report is accurate, risk management systems, and financial controls are robust and defensible. Ng *et al.* (2012) suggest that independence (composition) of committee members is a significant instrument in corporate governance. Likewise, the influence of decisions by management becomes less when members of a committee seem to be more independent (Mangena & Pike, 2005).

Empirically, studies have been scant on the relationship between RMC composition and firm performance. However, the available studies on risk management committee composition have found varying findings such as; Tao and Hutchinson (2013) who examined the role of risk and compensation committees in overseeing and managing the risk behaviour of financial firms in Australia found that risk committee composition is positively related with risk and firm performance. Moreover, Pantamee (2014) finds that risk management committee composition is positively associated with corporate social responsibility disclosure in the Nigerian petroleum marketing industry. Conversely, Ng *et al.* (2012) found that risk management committee independence (composition) is negatively associated with underwriting risk of insurance companies in Malaysia.

Accordingly, based on the empirical and theoretical supports presented, and the requirement of NCCG 2011 which states that risk management committees of publicly traded companies in Nigeria should compose of a majority of non-executive directors, this study, therefore, hypothesized that:

*H<sub>7</sub>: RMC composition has a positive relationship with firm performance.*

*H<sub>7a</sub>: RMC composition has a positive relationship with ROA.*

*H<sub>7b</sub>: RMC composition has a positive relationship with ROE.*

*H<sub>7c</sub>: RMC composition has a positive relationship with MTB.*

### **3.3.2.1 RMC Meetings and Firm Performance**

Board of directors hold meetings on behalf of the company to discuss issues of the past, present, and future that is related to the company, and resolutions are passed during board meetings (Kakanda *et al.*, 2016a). Khan and Javid (2011) and Pearce and Zahra (1992) contend that the more the number of board meetings, the better for a company because the boards will have more and better chances of making various decisions. In addition, a board meeting is regarded as an important resource of strengthening board of directors' effectiveness (Conger *et al.*, 1998), and the more regularity a board meets, the higher probability to obtain better performance (Lipton & Lorsch, 1992). Based on agency theory assumption, corporate boards display vibrant abilities in evaluating, penalizing, and controlling management actions, hence, higher frequency of board meetings increases firm performance (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999). Accordingly, the higher the meetings of risk management committee the better a firm's performance.

Although, the NCCG 2011 doesn't specifically state the required frequency of risk management committee meetings, but has recommended that a member of senior management, CEO, executive directors, and head of internal audit unit should attend meetings of the risk management committee. Accordingly, directors of companies should make sure that boards and committee meetings are well-ordered and are held on regular basis, and that director should fully participate in the meetings of the board of directors (IFC, 2010).

In compatibility with IFC report, the frequency of meeting portrays the level of commitment by a committee in performing their predetermined functions (Muhamad Sori & Mohamad, 2009), and depicts the extent of devotion by committee members in solving problems (Abdul Rahman, & Haneem Mohamed Ali, 2006). Ng *et al.* (2012) buttressed that "even if an RMC is well-structured with best practices in corporate governance, its function is, however, less effective without members' participation, which possibly explains how vital the activity criteria are related to the role of the committee" (p. 76).

Regardless of the limited studies on risk management committee meetings and firm performance, the relevant studies to the topic have recorded contradictory results. For example, Frequency of meetings of risk committee has a positive and significant impact on the performance of banks in U.S. during the financial crisis (Aebi *et al.*, 2012). Consistently, Pantamee (2014) has found that risk management committee meeting is significantly and positively related to corporate social responsibility disclosure in petroleum marketing sector in Nigeria. On the other hand, Ng *et al.* (2012) who examined the association between characteristics of risk management and risk taking of

insurance companies in Malaysia, found that the frequency of risk management committee meetings has no significant association with risk taking.

Therefore, on the basis of empirical findings presented, and the assertion by the NCCG 2011 that risk management committee should be held by quoted companies and should have CEO, executive directors, internal audit unit in attendance of the committee meetings, this study reasonably proposes the following hypothesis:

*H<sub>8</sub>: RMC meetings has a positive relationship with firm performance.*

*H<sub>8a</sub>: RMC meetings has a positive relationship with ROA.*

*H<sub>8b</sub>: RMC meetings has a positive relationship with ROE.*

*H<sub>8c</sub>: RMC meetings has a positive relationship with MTB.*

### **3.3.3 Risk Management Practices and Disclosure (RMPD) and Firm Performance**

Reporting via annual reports by corporate entities is a means of disclosing their business activities including risk management practices. This statement is on the basis of the report by IFC (2010) that periodic information and activities of a company is usually disclosed in the annual accounts and reports of companies which serve as a medium of communication between the company (management) and stakeholders for their decision making. This is because annual reports of companies are a dependable medium for shareholders and other stakeholders to assess information on risk management regarding a company (Holland, 1998; Lang & Lundholm, 1993).

Notably, companies with a significant amount of risk should provide a familiar reporting system involving direct reporting of risk management to the board of directors who are

acting on behalf of shareholders (OECD, 2015). The reporting system required is the annual reports of companies, as this suggestion is consistent with Wong (2012) who states that risk management practices of companies are usually disclosed in their annual published accounts and reports that are subject to scrutiny by professional auditors and prepared in accordance with a given rules and regulations governing financial reports.

Specifically, the NCCG 2011 has made recommendations to the publicly traded companies that the board of directors should make adequate disclosure on the company's procedures and practices on risk management. In the same line, the CBN code (2006 and 2014) has required financial service firms to make a disclosure regarding corporate governance and risk management practices in their annual reports as it may boost their performance.

On the basis of agency theory perspective, the disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), which ensures that information is provided in the annual reports of companies (Depoers, 2000) that enable investors to make an effective decision. However, linking risk management practices and disclosure with firm performance has been limited in the literature. But studies relevant to risk management practices and disclosure made varying reports. For instance, Buckby *et al.* (2015) examined 'how listed Australian Companies disclose risk management information in annual report governance statements in accordance with the Australian Securities Exchange (ASX) corporate governance framework', and found that there is an extensive deviation by companies in the disclosure practices and less conformity with principle 7 of the Australian principles and recommendations of corporate governance. Moreover, Abraham and Shrive (2014) undertook a study to explain how best to

enhance reporting of risk factors by publicly traded companies in Northcote, where they found that disclosures made my companies seem to be less or not related to the actual risk facing the companies, that is it can be regarded as '*symbolic window dressing*'.

Comparatively, Dabari and Saidin (2015) assessed the level of implementing Enterprise Risk Management (ERM) in the Nigerian banking industry and found that ERM is implemented by banks in Nigeria, but yet to be implemented by others. Equally important, Amran *et al.* (2008) found that there is no adequate disclosure of risk management by Malaysian companies. Whereas, Abdullah *et al.* (2015) found that voluntary risk management disclosure in Malaysian firms is found to be positively and significantly related to firm value.

Nonetheless, with the slight evidence from empirical findings and theory, and a support from the NCCG 2011 which states that publicly traded companies should make adequate disclosure of their risk management practices in their annual reports in order to improve performance, this study suggests the following hypothesis:

*H<sub>9</sub>: Risk management practice and disclosure (RMPD) has a positive relationship with firm performance.*

*H<sub>9a</sub>: RMPD has a positive relationship with ROA.*

*H<sub>9b</sub>: RMPD has a positive relationship with ROE.*

*H<sub>9c</sub>: RMPD has a positive relationship with MTB.*

### **3.4 Control Variables**

Apart from the independent variables pinpointed earlier, some control variables will also be utilized in this study. Control variables play an important role in quantitative research, and they are variables that a researcher controlled for so as to determine the true impact of the Independent Variables (IVs) on the Dependent Variables (DVs) (Creswell, 2013). In addition, controlling for variables will take into consideration the various firms' characteristics that may influence the magnitude of firm performance. As a matter of fact, the characteristics are considered as critical in ensuring a better result in assessing the relationship between corporate governance and company performance, and if they are not controlled for, they might be complicated and distort results (Aljifri & Moustafa, 2007). For the purpose of this study, therefore, three variables will be controlled namely; firm size, leverage, and firm age so as to control for variations in size of companies, capital structure, and time period (Alfijir & Moustafa, 2007; Afrifa & Tauringana, 2015; Grossman & Hart, 1982; Harvey Pamburai *et al.*, 2015; Pfeffer & Salancik, 1978; Ward & Mendoza, 1996).

#### **3.4.1 Firm Size**

Firm size has been used as a control variable by various studies that examined the relationship between corporate governance mechanisms and corporate performance (e.g., Aljifri & Moustafa, 2007; Ghosh, 2006; Patro, Lehn, & Zhao, 2003). Specifically, firm size affects firm performance because Pfeffer and Salancik (1978) argued that larger firms stand in a better position in their economic environment to employ individuals with great talents over their counterparts (small firms) in order to have an

effective and efficient plan and decisions that will significantly assist in achieving organizational objectives.

Furthermore, larger firms are found to perform superior to smaller firms, due to their capacity and dimensions in risk diversification (Ghosh, 2001), and are more effective and efficient than smaller ones because of their staff competencies, market power, economies of scale (Helmich, 1977; Kumar, 2004). Nevertheless, more board members are required for better firm growth because they are considered competent in monitoring functions (Coles & Jarrell, 2001), and larger firms are significantly effective than smaller firms due to their large economies of scales and recruiting of highly skilled employees (Kyereboah-Coleman & Biekpe, 2006).

Wu, Lin, C., and Lin, I. (2009) who studied the impact of CG mechanisms on performance of Taiwan firms (excluding financial firms) for the period of 2001 to 2008 (7130 year-observations), used firm size as a control variable. Their result shows that firm size has a significant positive effect on firm performance (represented by ROA and Tobin's Q). In the same vein, Reguero-Alvarado and Bravo (2017) examined the influence of independent directors' characteristics on the performance of the US firms for the period of 2008 to 2012 and employed firm size as a control variable. The result of their analysis shows that firm size has a significant positive impact on performance (as represented by Tobin's Q).

Per contra, Mayur and Saravanan (2017) investigate the 'performance implications of board size, board composition, and frequency of board meetings on the performance of banks in India'. With a sample of 40 banks and covering the period of 2008 to 2012, the

study used return on asset (ROA), Tobin's Q, and non-performing asset ratio (NPA ratio) as measures of firm performance, while controlling for firm size. Their result indicates that firm size has positive, but insignificant effect on all the three performance measures used in their study. Whereas, Arora and Sharma (2016) found a mixed result on the effect of firm size on performance of firms in India. The result shows that firm size has negative, but insignificant effect on ROA and Tobin's Q, while having a positive insignificant effect on ROE, and a significant positive impact on Net Profit Margin (NPM) and Stock Returns (SR). Consequently, this study will control for firm size and will measure it as the natural logarithms of a firm's total assets (Afrifa & Tauriringana, 2015; Bhagat & Black, 1999; Harvey Pamburai *et al.*, 2015).

### 3.4.2 Leverage

Debt financing or leveraging can be referring to as application of money borrowed by companies to enhance their performance, and has been widely utilized as a control variable by various studies that examined the relationship between performance of firms and corporate governance, who found a positive effect of leverage on performance (e.g., Chiang & Lin, 2011; Hurdle, 1974; Kang & Kim, 2011; Kyereboah-Coleman & Biekpe, 2006).

Moreover, leverage is also found to have a positive relationship with information disclosure (Ho & Wong, 2001; Imam & Malik, 2007), and organizations are more probable to disclose relevant information in order to meet the requirements of funds borrowers (Haniffa & Cooke, 2005). Leverage is determined by dividing total debt of a company by their total assets, and it is expected to affect firm performance. This positive

effect may reduce cash flow and company's control to reveal more information about the market, as managers may be pressured to enhance firm's performance and market value (Alzharani *et al.*, 2011; Harris & Raviv, 1991). Therefore, this study finds it reasonable to control for firm's leverage.

### **3.4.3 Firm Age**

This study will utilize firm age as a control variable in order to assess the performance of the study sampled firms over the periods under investigation. It is considered as the period or number of years a firm has been in operation since incorporation (Afrifa & Tauringana, 2015; Alhaji, 2014; Faruk, 2011). Moreover, it is presumed that a firm that has been in operation for a longer period will have an economic advantage over smaller ones. This statement is consistent with the opinion of Ward and Mendoza (1996) who argued that smaller firms are defenseless with firm age because they are expected to last for the period of five (5) to ten (10), therefore on the verge of winding-up.

Consistently, Stinchcombe (1965) argue that when the age of firm increases, management of such firm acquire more comprehension of their abilities, skills, and competencies over time. Empirically, Arora and Sharma (2016) who examined the relationship between CG mechanisms and performance of large firms in India and used firm age as one of their control variable arrived at mixed findings. In this effect, the result shows that firm age has a significant positive effect on ROA, a positive, but insignificant effect on Net Profit Margin (NPM). However, the result also shows that firm age has a significant negative influence on ROE and Tobin's Q, and has a negative, but insignificant impact on Stock Returns (SR).

Moreover, a study by Mayur and Saravanan (2017) shows that firm age has positive, but insignificant impact on ROA, Tobin's Q, and non-performing asset ratio (NPA ratio) of large firms in India. The study utilizes 40 listed banks as a sample, covering the period of 2008 to 2012. Using a sample of 100 listed companies on the Karachi Stock Exchange spanning from 2009 to 2013, Yasser, Mamum, and Rodrigs (2017) found that firm age (a control variable) has a positive, but insignificant effect on ROA and Tobin's Q, while having a negative, but insignificant impact on Economic Value Added (EVA). The study aims at examining relationship between board characteristics and performance of firms listed on Karachi Stock Exchange. Hence, in order to assess the association between corporate governance and company performance, the age of firms will be controlled so as to control for variations in the time period between the sampled firms in this study.

#### **3.4.4 Asset Tangibility**



For the purpose of this study, the tangibility of assets will also be controlled for in order to effectively examine the relationship between board attributes, risk management structure, risk management practices and disclosures and firm performance. This is in consensus with previous studies on corporate governance and firm performance who report that asset tangibility effects performance variables like ROA and Tobin's Q (Mishra, Randøy, & Jenssen, 2001; Randøy & Goel, 2003). Moreover, asset tangibility is considered as a major determinant of a company performance (Onaolapo & Kajola, 2010), and a firm that has a higher proportion of its assets as tangibles (like plant and equipment), are more probable to debt choices which influence performance (MacKIE-MASON, 1990).

Furthermore, Maury and Pajuste (2005) investigate the impact of multiple large shareholders on the value of 136 Finnish listed firms from 1993-2000. The authors argue that asset tangibility has a significant effect on firm performance, and therefore control it. In the same vein, Akintoye (2008) contends that a company with a large portion of its asset structure as tangible assets will have fewer costs of financial constraints than a firm that heavily relies on non-tangible assets. However, Onaolapo and Kajola (2010) assess the effect of capital structure on the performance of 30 non-financial quoted firms in Nigeria from 2001 to 2007. The result from their study indicates that asset tangibility is negatively related to firm performance (ROA & ROE). As such, this study will control for asset tangibility of the sample firms as it may have a significant impact on performance.

### **3.5 Methodology**

#### **3.5.1 Research Design**

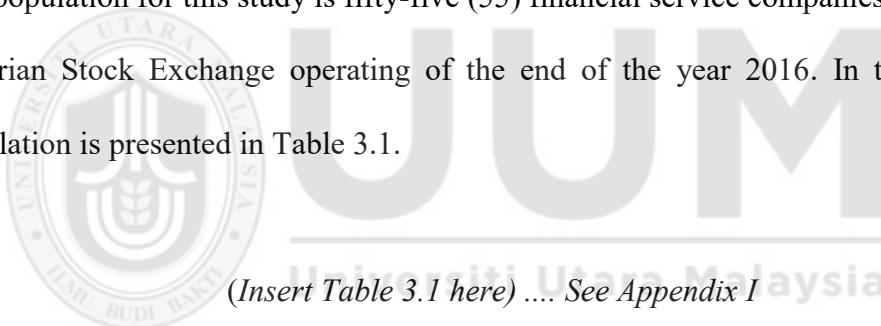


In an attempt to achieve the objectives of this study, the correlational kind of *Ex post facto* research design was utilized. This is because an *Ex post facto* is “a method that can also be used instead of an experiment, to test hypotheses about cause and effect in situations where it is unethical to control or manipulate the dependent variable” (Cohen, Manion, & Morrison, 2007, p. 264). In addition, *Ex post facto* research design is considered as a substitute for real experimental research which is used in testing hypotheses about correlational relationships or cause-and-effect, where it is not ethical or practical to apply experimental or quasi-experimental designs (Cohen *et al.*, 2000). It is a research design that utilizes data already gathered not necessarily collected for research purposes (Simon & Goes, 2013).

Therefore, this study utilizes *Ex post facto* research design to examine the association between board attributes (board size, board composition, board meetings, CEO tenure, and board expertise), risk management committee structure (RMC size, RMC composition, RMC meetings), and risk management practices and disclosure as independent variables, and corporate performance (ROA, ROE, and MTB) as dependent variables. Subsequently, the variables (dependent, independent, and control) were utilized in this study in form of panel data.

### **3.5.2 Population of the Study**

The population for this study is fifty-five (55) financial service companies listed on the Nigerian Stock Exchange operating of the end of the year 2016. In this way, the population is presented in Table 3.1.



*(Insert Table 3.1 here) .... See Appendix I*

### **3.5.3 Sample Size of the Study**

For the purpose of this study, only forty-five (45) out of the 55 financial services firms quoted on the Nigerian Stock Exchange (NSE) actively operating to end of the year 2016 were used as the sample. For the reason that they are those with the available data required to accomplish this study. The sample for this study is presented in Table 3.2.

*(Insert Table 3.2 here) .... See Appendix II*

### **3.5.4 Method of Data Collection**

To achieve the objectives of this study, data was collected from the annual reports and accounts of the 45 sampled firms for four (5) years period spanning from 2012 to 2016. The year 2012 is considered the initial year because the Nigerian CG Code was revised in early 2011, and publicly traded companies adopt its full implementation before January 2012, hence, paves the way to assess the 5 years trends from implementation period (2012) to 2016. Therefore, the data for this study were collected based on the NCCG 2011 from the annual accounts and reports of the companies which were collected from the NSE website, websites of the sampled firms and some hard copies of the annual reports and accounts from the zonal office of NSE in Kaduna state (Northern Nigeria).

Data on ROA, ROE, MTB, firm size, leverage, firm age, and asset tangibility were utilized from the statement of financial position and statement of comprehensive income of the companies' annual reports. While data on board size, board composition, board meetings, CEO tenure, board expertise, RMC size, RMC composition, RMC meetings, and risk management practices and disclosure were gathered from both chairmen statements and directors' reports, and reports on companies' profile regarding corporate governance for the periods under investigation from the audited annual accounts and reports of the sampled firms.

### 3.5.4.1 Content Analysis

For the purpose of collecting data regarding risk management practices and disclosure, this study uses quantitative content analysis. Content analysis is referring to as the coding and analyzing of textual or visual data to determine meaningful patterns, and it is a technique that summarizes any type of content by counting several parts of the contents (Weber, 1990). Notably, analyzing data through contents enable researchers to process a large amount of data with relative affluence and in a more systematic fashion, and in analyzing the patterns and trends in documents (Stemler, 2001). For the purpose of measuring the volume or number of disclosures, various studies applied quantitative content analysis by counting the number of sentences, words or pages (for instance, Deegan, Rankin, & Voght, 2000; Elshandidy, Fraser, & Hussainey, 2013; Elshandidy & Neri, 2014; Hackston & Milne, 1996; Linsley & Shrives, 2005).

Nevertheless, content analysis is not limited to the counting of words only but extends to categorizing and coding of data (Stemler, 2001). Data categorization basic is summed up as "A category is a group of words with similar meaning or connotations" (Weber, 1990, p. 37). While U.S. General Accounting Office, GAO (1996) states that "categories must be mutually exclusive and exhaustive" (p. 20). Consequently, Stemler (2001) adds that "mutually exclusive categories exist when no unit falls between two data points, and each unit is represented by only one data point. The requirement of exhaustive categories is met when the data language represents all recording units without exception" (p. 3).

Consequently, there are studies that used categories in analyzing contents of firms (e.g., Beattie, McInnes, & Fearnley, 2004; Beretta & Bozzolan, 2004; Linsley & Shives, 2005; Wong, 2012). Therefore, this study also extends word counts in the contents of annual reports of the sampled companies by concentrating on the category of risk management disclosure based on the requirement of the NCCG 2011 and CBN code (2006). The main category is “Risk Management Framework” which is sub categorized into;

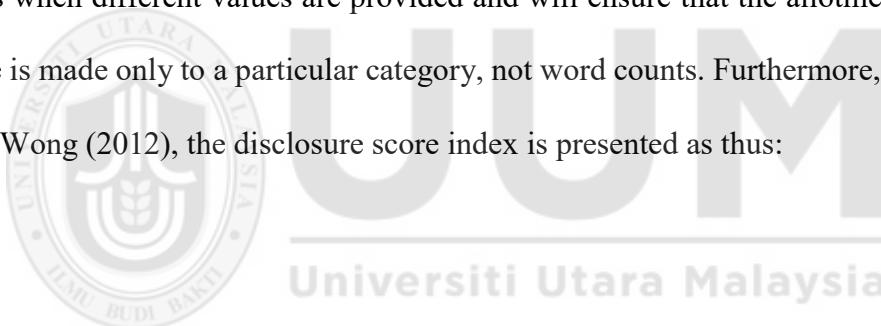
- 1) Governance structure related to risk management.
- 2) Risk management committee responsibility and function explanations.
- 3) Description of risk management policies and objectives.
- 4) Audit committee responsibility and function explanations.
- 5) Capital/Market risk disclosure.
- 6) Environmental risk disclosure; and
- 7) Operational risk and other risks disclosure.

However, it is worthy to mention that the above-stated categories are adapted from Wong (2012) to suit the necessities of this study based on the requirement of SEC (2011) and CBN (2006). Moreover, it should be noted that this study does not intend to elaborate on the seven (7) categories of risk management practice and disclosure developed, but to determine the extent of their disclosure and how they are related to the performance of firms, as shareholders and other stakeholders might be interested in it. Following Linsley and Shives (2005), the researcher reads through the annual reports of each company in the sample to identify the sentences providing risk elements and/or risk-management information. For this reason, each risk management information was

coded using risk management disclosure index relating to each category of disclosure explained earlier.

### **3.5.4.1.1 Development of Disclosure Score Index**

In order to collect data on risk management practices and disclosure of financial service firms in Nigeria, a disclosure index was developed based on the seven (7) categories of disclosure identified above. Following Wong (2012), one '1' is scored for disclosure item category when disclosed, and zero '0' if there is no disclosure observed, because this method can eliminate the probability of research bias which may be present in some items when different values are provided and will ensure that the allotment of a rating score is made only to a particular category, not word counts. Furthermore, in consistent with Wong (2012), the disclosure score index is presented as thus:



**Table 3.3***Risk Management Practices Disclosure Index*

<b>Name of Company</b>	<b>S/n</b>	<b>Item Category</b>	<b>Years</b>				
			2012	2013	2014	2015	2016
E.g., Coy 'X'	1.	Governance structure related to risk management.					
	2.	Risk management committee responsibility and function explanations.					
	3.	Description of risk management policies and objectives.					
	4.	Audit committee responsibility and function explanations.					
	5.	Capital/Market risk disclosure.					
	6.	Environmental risk disclosure.					
	7.	Operational risk and other risks disclosure.					
<b>Total</b>	-	-----	-----	-----	-----	-----	-----

Source: Adapted from Wong (2012).

**Universiti Utara Malaysia**

Moreover, explanations to the above risk disclosure categories are presented as thus following Linsley and Shrvies (2005), SEC (2011), and Wong (2012):

**Table 3.4***Risk Disclosure Categories Explained*

<b>S/n</b>	<b>Item Category</b>	<b>Explanation</b>
1.	Governance structure related to risk management.	Risk management committee availability.
2.	Risk management committee responsibility and function explanations.	Explanation of responsibilities and functions of risk management committee.
3.	Description of risk management policies and objectives.	Availability of explanations to risk management policies and objectives of the firms.
4.	Audit committee responsibility and function explanations.	Availability of audit committee structure and explanations to their responsibility.
5.	Capital/Market risk disclosure.	The interest rate, exchange rate, commodity, liquidity, and credit.
6.	Environmental risk disclosure.	Health and safety, erosion of brand name, and corporate social responsibility.
7.	Operational risk and other risks disclosure.	Customer satisfaction, product development, sourcing, product and service failure, stock obsolescence and shrinkage.

Source: Adapted from Linsley and Shrives (2005), SEC (2011), and Wong (2012).

Reasonably, to obtain the real scores of the data under each firm for each accounting period, a rating score is provided for all the seven (7) risk management practices and disclosure categories. In line with Wong (2012), a total of “0” under each firm for each accounting year indicates no disclosure at all, which might be difficult after adopting SEC (2011) code of corporate governance in Nigeria. Likewise, a total value of “1 to 2” indicates weak disclosure intensity, “3 to 4” is moderate disclosure intensity, “5 to 6” is a strong disclosure magnitude, and a summation above “6” portrays a very strong

disclosure intensity. The summary of these ratings is provided in the following table as thus:

**Table 3.5**

*Rating on Degree of Risk Management Practice Disclosure Intensity.*

<b>Rating Score</b>	<b>Degree of Disclosure</b>		<b>Rating Parameter</b>
1.	No disclosure	-	0----disclosure item
2.	Weak disclosure	-	1-2—disclosure items
3.	Moderate disclosure	-	3-4---disclosure items
4.	Strong disclosure	-	5-6---disclosure items
5.	Very strong disclosure	-	Above 6--disclosure item

Source: Adapted from Wong (2012).

### 3.5.4.1.2 Justification for the use of Content Analysis

This study used content analysis in gathering the data on risk management practices and disclosure because the quantitative content analysis can be utilized to measure the disclosure indexes (Wong, 2012), and can allow the researcher to determine the various category of risk management practices and disclosure of Nigerian financial service firms. Equally important, content analysis can only be applied when the points of *reliability* with *consistency* and *validity* are achieved (Stemler, 2001).

Significantly, these requirements of content analysis are presumed to be met, since annual reports of the companies are generally prepared based on the requirements of statute (that is, Companies and Allied Matters Act [CAMA], 1990), and professional pronouncements like; International Financial Reporting Standards (IFRS), local accounting standards (Statement of Accounting Standards, SAS, where applicable in

Nigeria). In like manner, the annual reports are always subject to examination and independent judgement by professional auditors before being published as required by law (CAMA, 1990). Moreover, the disclosure of the risk management practices is required by the NCCG 2011 for publicly trading companies and complemented by the CBN code (2006) for best practices in the Nigerian financial service sector. As such, it is assumed that the contents of the annual reports used in this study were reliable, consistent, and valid.

### **3.5.5 Definition and Measurement of Variables**

The variables in this study include ROA, ROE and MTB as dependent variables and independent variables embodied by proxies such as; board size, board composition, board meetings, RMC size, RMC composition, RMC meetings, and risk management practices and disclosure. Moreover, the control variables in this study include; firm size, leverage, firm age, and asset tangibility.

#### **3.5.5.1 Dependent Variable**

The dependent variable for this study is firm performance represented by accounting based performance measurements and market-based performance measurement. Return on Assets (ROA) and Return on Equity (ROE) symbolize accounting based performance measurements, while Market-to-book-ratio (MTB) symbolizes market-based performance measurement.

### 3.5.5.1.1 Return on Assets (ROA)

Return on assets as a proxy for financial performance is the proportion of net income generated from the total assets of a company. It is usually measured as net income divided by total assets (Al-Matari *et al.*, 2012; Alzharani, Che Ahmad, & Aljaaidi, 2011; Anderson & Reeb, 2003; Gentry & Shen, 2010; Kaur, 2014; Khan, 2012; Onaolopo & Kajola, 2010; Saibaba & Ansari, 2013; Yermack, 1996; Zeitun & Tian, 2007). It is mathematically determined as thus:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100 = \text{X\%}$$

### 3.5.5.1.2 Return on Equity (ROE)

Return on equity is often regarded as the percentage of income generated as a return to shareholders on their capital investment in a company. It is measured as the total net income divided by total owners' equity (Alzharani *et al.*, 2011; Gentry & Shen, 2010; Khan, 2012; Maina & Ishmail, 2014; Maury, 2006; Onaolopo & Kajola, 2010; Sunday, 2015; Zeitun & Tian, 2007). It can be stated mathematically as thus:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100 = \text{X\%}$$

### 3.5.5.1.3 Market-to-book-value ratio (MTB)

Market-to-book-value ratio represents the market-based performance measures which is “a powerful complement to conventional measures of financial performance” (Best, 2004, p. 33). It is measured as the ratio of firm’s total market value divided by its total assets (Gentry & Shen, 2010; Richard, Devinney, Yip, & Johnson, 2009). It can mathematically be presented as thus:

$$\text{MTB} = \frac{\text{Total Market Value}}{\text{Total Assets}} = X$$

### 3.5.5.2 Independent Variables

The independent variables of this study include board attributes represented by board size, board composition, board meetings, CEO tenure, board expertise; risk management committee structure (RMC size, RMC composition, and RMC meetings); and risk management practices and disclosure. Their measurements are provided in the subsequent subtitles.

#### 3.5.5.2.1 Board Size

board size as the degree of the board of directors of a company, and It is the total number of directors serving on a company's board (Kakanda *et al.*, 2016a; Ogege & Boloupromo, 2014; Vafeas, 1999). Specifically, board size is measured as the total number of directors serving on a company's board (Donashana & Ravivathani, 2014; Imam & Malik, 2007; Liang *et al.*, 2013; Sunday, 2008).

### **3.5.5.2.2 Board Composition**

Board composition may be referring to as the collection or combination of various director types serving on a company's board. It is the number of non-executive directors on board of a company (Kakanda *et al.*, 2016a). It is measured as the ratio of non-executive directors to total directors (Akbar, 2015; Al-Najjar, 2014; Bhagat & Black, 1999; Kurawa & Kabara, 2014; Liang *et al.*, 2013; Marn & Romuald, 2012; Uadiale, 2010; Yasser *et al.*, 2011).

### **3.5.5.2.3 Board Meetings**

Significant issues and major decisions of a company are discussed in the board meetings, and board of directors hold meetings on behalf of the company to discuss issues of the past, present, and future that is related to the company, and resolutions are passed during board meetings (Kakanda *et al.*, 2016a). Board meeting is measured as the number of meetings during a year by a company board of directors (Al-Ghamdi, 2012; Al-Matari *et al.*, 2014a; Chechet, Jnr., & Akanet, 2013; Donashana & Ravivathani, 2014; Harvey Pamburai *et al.*, 2015; Jackling & Johl, 2009; Karamanou & Vafeas, 2005; Liang *et al.*, 2013; Rodriguez-Fernandez, Fernandez-Alonso, & Rodriguez-Rodriguez, 2014; Sahu & Manna, 2013; Vafeas, 1999).

### **3.5.5.2.4 CEO Tenure**

Tenure denotes a period of time during which something is possessed, and the tenure of a company's chief executive officer has been an important element for research

concerning executive and organization leadership (Simsek, 2007). Tenure of corporate CEO is measured as the period (in years) the CEO has been in his position at each financial year end (Afrifa & Tauringana, 2015; Agrawal & Knoeber, 1996; Al-Matari *et al.*, 2014a; Belkhir, 2009; Kyereboah-Coleman, 2008; Sanda *et al.*, 2011).

### **3.5.5.2.5 Board Expertise**

Board expertise is imperative in ensuring that the oversight function of the board is successfully carried out (Yatim, 2010), and directors that sit on the board of more than one company will enable them to acquire more skill, knowledge, and become more expertise in carrying out their oversight functions on managers' activities (Nadarajan *et al.*, 2015). Board expertise is measured as the "average number of outside directorships held in other firms by non-executive directors" (Andreou *et al.*, 2014; Elyasiani & Zhang, 2015; Fich & Shivdasani, Field *et al.*, 2013; Yatim, 2010).

### **3.5.5.2.6 Risk Management Committee (RMC) Size**

For the purpose of this study, risk management committee size will be measured as the number of directors serving on the RMC. This is consistent with Ng *et al.* (2012), Michelon and Parbonetti (2012), Pantamee (2014), and SEC (2011).

### **3.5.5.2.7 Risk Management Committee (RMC) Composition**

The composition of committee members is a significant instrument in corporate governance (Ng *et al.*, 2012), and non-executive directors are vital in overseeing

management actions (Fama & Jensen, 1983). Therefore, risk management committee composition is measured in this study as the number of non-executive directors serving on the risk management committee as consistent with Pantamee (2014), SEC (2011), and Tao and Hutchinson (2013).

#### **3.5.5.2.8 Risk Management Committee (RMC) Meetings**

The frequency of meetings is an indication of how committee members dedicated their time in solving organizational problems towards achieving predetermined objectives (Abdul Rahman, & Haneem Mohamed Ali, 2006). As in the case of board meetings, risk management committee is also measured as the number of meetings held by RMC during a financial period (Aebi *et al.*, 2012; Alhaji, 2011; Pantamee, 2014; SEC, 2011).

#### **3.5.5.2.9 Risk Management Practices and Disclosure**

Risk management practice of a company is usually disclosed in the annual reports of the company (SEC, 2011; Wong, 2012). However, since it may be a bit difficult to analyze risk management practice and disclosure directly from the figures in Statements of Financial Position and Comprehensive Income of companies, a disclosure index was used in generating the data. The disclosure index on risk management practices and disclosure adapted from Wong (2012) was utilized for this purpose to suit the requirement of this study.

### **3.5.5.3 Control Variables**

#### **3.5.5.3.1 Firm Size**

To follow the norms of other studies, firm size is measured as the natural logarithm ( $L_n$ ) of a company's total assets (Afrifa & Tauringana, 2015; Aljifri & Moustafa, 2007; 2015; Bhagat & Black, 1999; Haniffa & Hudaib, 2006; Harvey Pamburai *et al.*, 2015; Peng, Li, Xie, & Su, 2010).

#### **3.5.5.3.2 Leverage**

Leverage or debt is the money borrowed by firms in order to carry out their business activities and enhance performance. It is measured as the ratio of total debts to corporate total assets at the end of a given accounting period (Afrifa & Tauringana, 2015; Myers, 1977; Najid & Abdul Rahman, 2011).

#### **3.5.5.3.3 Firm Age**

This is the number of years a company is being in existence. It is measured as the “number of years between incorporation and the calendar year-end of each firm” (Afrifa & Tauringana, 2015, p. 725; Alhaji, 2014; Faruk, 2011; Pantamee, 2014).

#### **3.5.5.3.4 Asset Tangibility**

This is the composition of tangible assets in total assets structure of a company. It is measured as the book value of fixed assets divided by total assets of a company

(Akintoye, 2008; Maury & Pajuste, 2005; Mishra *et al.*, 2001; Onaolopo & Kajola, 2010; Randøy & Goel, 2003).

However, to have a snapshot understanding of the variables in this study, the following table provides the acronyms and measurement of the variables.



**Table 3.6***Summary of Research Variables and their Measurements*

S/n	Variables	Acronym	Measurement
<b>Dependent Variables (DVs)</b>			
1.	Return on Assets	ROA	Net income divided by total assets.
2.	Return on Equity	ROE	Net income divided by total owners' equity.
3.	Market-to-book-value ratio	MTB	The ratio of firm's total market value divided by its total assets.
<b>Independent Variables (IVs)</b>			
4.	Board Size	BSZ	The total number of directors serving on a company's board.
5.	Board Composition	BCOMP	The number of non-executive directors on board of a company.
6.	Board Meetings	BM	The number of meetings during a year by a company board of directors.
7.	CEO Tenure	CEOT	The period (in years) the CEO has been in his position at each financial year end.
8.	Board Expertise	BEXP	The “average number of outside directorships held in other firms by non-executive directors”.
9.	Risk Mgt. Committee Size	RMCS	The number of directors serving on the RMC.
10.	Risk Mgt. Committee Composition	RMCC	The number of non-executive directors serving on the RMC.

Table 3.6 (Continued).....

11.	Risk Mgt. Committee Meetings	RBCM	The number of meetings held by RMC during a financial period.
12.	Risk Mgt. Practices and Disclosure	RMPD	Based on the score index developed for this study.
<b>Control Variables (CVs)</b>			
13.	Firm Size	FSZ	The natural logarithm ( $\ln TA$ ) of a company's total assets
14.	Leverage	LEV	The ratio of total debts to corporate total assets at the end of a given accounting period.
15.	Firm Age	FAG	The number of years between incorporation and the calendar year-end of each firm.
16	Asset Tangibility	ASTAN	The book value of fixed assets divided by total assets.

Source: Developed by the author for this study



### **3.6 Techniques of Data Analysis**

For the purpose of this study, descriptive statistics, correlations, and multivariate techniques were used in analyzing the panel data collected.

#### **3.6.1 Panel Data**

For the purpose of this study, a panel (longitudinal) data method was utilized in order to assess the effect of the independent variables (board size, board composition, board meetings, CEO tenure, board expertise, RMC size, RMC composition, RMC, meetings, and risk management practices and disclosure) on the dependent variable (return on assets, return on equity, and market-to-book value ratio). This is because Hsiao (2003) states that “a longitudinal or panel data set is one that follows a given sample of individuals over time, and thus provides multiple observations on each individual in the sample” (p. 3). Similarly, Baltagi (2005) reports that “panel data refers to the pooling of observations on a cross-section of households, countries, firms, etc. over several time periods” (p. 1). An important advantage of using panel data is due to several data options, the degree of freedom increased, and collinearity among the explanatory variables is reduced, thereby, improving the efficiency of results (Asteriou & Hall, 2007).

Moreover, there are several benefits in the use of panel data (Hsiao, 2003; Klevmarken, 1989), among them include: (1) it controls for ‘*individual heterogeneity*’ because panel data assumes that firms are heterogeneous (diverse), and longitudinal studies that don’t control heterogeneity may acquire biased results; (2) it is more effective in identifying

and measuring the effects that are not simply measurable in a pure cross-section or time-series data; (3) it also allows one to construct and analyze more complicated behavioral models than pure cross-sections or time-series data; (4) data gathered on micro panel data on firms may be measured more accurately, hence biases occasioning from combination of firms may be condensed or eliminated. Therefore, the rationalization of using panel data in this study is the combination of fifty-five (55) financial service firms over four years' period from 2012 to 2015.

### **3.6.2 Descriptive Analysis**

Descriptive analysis is used to define some situation or features by providing measures of an activity or event (Hair, Money, Samouel, & Page, 2007). Descriptive statistics gives a description of samples of subjects in form of variables or collection of variables (Tabachnick & Fidell, 2007). The authors added that descriptive statistics are used to provide in a given population, the estimations of central tendencies, minimum, maximum, and standard deviation. Moreover, descriptive analysis is considered as the initial step in analysing large data set that serve as a proofreading of data and examination of variables (Tabachnick & Fidell, 2007).

Therefore, to achieve objective one of this study, descriptive analysis was employed to identify the extent of risk management practices and disclosure among financial services firms publicly trading on the Nigerian Stock Exchange up to the end of the year 2016.

### 3.6.3 Multivariate Analysis

In attempting to achieve the second, third, and fourth objectives of this study, multivariate analysis was employed in analyzing the data. Tabachnick and Fidell (2007) stress that multivariate statistics “provide analysis when there are many independent variables (IVs) and/or many dependent variables (DVs), all correlated with one another to varying degrees” (p. 1). The authors added that “with the use of multivariate statistical techniques, complex interrelationships among variables are revealed and assessed in statistical inference, and it is possible to keep the overall Type I error (the incorrect rejection of a true null hypothesis) rate at, say, 5% no matter how many variables are tested” (p. 3).

Therefore, the technique used by this study in examining the relationship between the dependent and independent variables is multivariate regression. Tabachnick and Fidell (2007) buttressed that "multiple regression is used to predict the score on the DV from the scores of several IVs, and it emphasizes the prediction of the DV from the IVs. Moreover, in multiple correlation and regression, the IVs may or may not be correlated with each other, and the techniques also allow assessment of the relative contribution of each of the IVs toward predicting the DV" (p. 18). As such, multiple regression analysis was used in analyzing the data for this study (Tabachnick & Fidell, 2007).

Furthermore, with the utilization of correlation analysis, multicollinearity among the variables can be assessed. Multicollinearity is said to exist when the IVs are highly correlated with each other (e.g., 0.90 and above) (Hair Jr., Black, Babin, & Anderson, 2014; Tabachnick & Fidell, 2007). Therefore, this study has tested for multicollinearity

using Pearson's correlation so as to know the relationship between the variables as well as the significance thereon. In addition, other analyses like normality test, homoscedasticity, and independent errors were conducted in order to ensure that the assumptions to use multiple regression are met.

Therefore, in order to run the analyses of the data in this study, SPSS version 20, and STATA version 14 were employed. The SPSS version 20 was used to conduct the data management and screening, while STATA version 14 was used to run the multivariate regression test. However, the analyses were conducted based on the models in this study.

### **3.6.4 Model Specification**

In order to achieve objectives two, three, and four which aimed at examining the relationship between the independent variables (board size, board composition, board meetings, CEO tenure, board expertise, RMC size, RMC, composition, RMC meetings, and risk management practices and disclosure) and dependent variable (ROA, ROE, and MTB), multiple regression models were utilized, hence, leads to the development of three different models as thus:

#### **Model 1:**

$$ROA_{it} = \beta_0 + \beta_1 BSZ_{it} + \beta_2 BCOMP_{it} + \beta_3 BM_{it} + \beta_4 CEOT_{it} + \beta_5 BEXP_{it} + \beta_6 RMCS_{it} + \beta_7 RMCC_{it} + \beta_8 RMCM_{it} + \beta_9 RMPD_{it} + \beta_{10} FSZ_{it} + \beta_{11} LEV_{it} + \beta_{12} FAG_{it} + \beta_{13} ASTAN_{it} + \varepsilon_{it} \dots \dots \dots \text{(Equation 4.1).}$$

**Model 2:**

$$ROE_{it} = \beta_0 + \beta_1 BSZ_{it} + \beta_2 BCOMP_{it} + \beta_3 BM_{it} + \beta_4 CEOT_{it} + \beta_5 BEXP_{it} + \beta_6 RMCS_{it} + \beta_7 RMCC_{it} + \beta_8 RMCM_{it} + \beta_9 RMPD_{it} + \beta_{10} FSZ_{it} + \beta_{11} LEV_{it} + \beta_{12} FAG_{it} + \beta_{13} ASTAN_{it} + \varepsilon_{it} \dots \dots \dots \text{(Equation 4.2).}$$

**Model 3:**

$$MTB_{it} = \beta_0 + \beta_1 BSZ_{it} + \beta_2 BCOMP_{it} + \beta_3 BM_{it} + \beta_4 CEOT_{it} + \beta_5 BEXP_{it} + \beta_6 RMCS_{it} + \beta_7 RMCC_{it} + \beta_8 RMCM_{it} + \beta_9 RMPD_{it} + \beta_{10} FSZ_{it} + \beta_{11} LEV_{it} + \beta_{12} FAG_{it} + \beta_{13} ASTAN_{it} + \varepsilon_{it} \dots \dots \dots \text{(Equation 4.3).}$$

Where;

$\beta_0$  = Intercept (constant)

$ROA_{it}$  = Return on assets of firm i in time t

$ROE_{it}$  = Return on equity of firm i in time t

$MTB_{it}$  = Market-to-book ratio of firm i in time t

$BSZ_{it}$  = Board size of firm i in time t

$BCOMP_{it}$  = Board composition of firm i in time t

$BM_{it}$  = Board meeting of firm i in time t

$BEXP_{it}$  = Board expertise of firm i in time t

$RMCS_{it}$  = Risk management committee size of firm i in time t

$RMCC_{it}$  = Risk management committee composition of firm i in time t

$RMCM_{it}$  = Risk management committee meetings of firm i in time t

$RMPD_{it}$  = Risk management practices and disclosure of firm i in time t

$FSZ_{it}$  = Firm size of firm i in time t

$LEV_{it}$  = Leverage of firm i in time t

$FAG_{it}$  = Age of firm i in time t

$ASTAN_{it}$  = Asset tangibility of firm i in time t

$\varepsilon_{it}$  = Error term

### **3.7 Chapter Summary**

This chapter discusses the research framework which shows the direction and relationship between the variables in this study. In addition, the research hypotheses were formulated indicating the expected results. The research methodology was also presented consisting of research design, panel data, population, sample size, the method of data collection, operational definition and measurement of variables, and techniques of data analysis.



## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter presents the results from data analysis and findings associated with the research framework and the developed model of this study as presented in the previous chapter. Explicitly, the chapter is split into subsections, starting with the analysis of the sample used as well as the descriptive statistics of the study variables. Furthermore, the Pearson correlation analysis, data cleaning and screening prior to multivariate analysis, diagnostics tests, panel data results, and summary of the findings relating to the hypothesis testing between the CG variables and performance variables are reported.

#### **4.2 Analysis of the Sample Used**

As initially stated in the previous chapter, the population of the study will be maintained as the sample, which comprises of 55 financial services companies operating in the Nigerian Stock Exchange from the year 2012 to 2016, and whose data are available for the said period. However, due to the availability of data for the five years (2012 to 2016) period, only 45 companies were utilized as the sample for this study, in which 225-year observations are obtained. Moreover, the data on the board of directors' attributes, risk management committee structure, risk management practice and disclosure, and firm performance were collected from the annual reports and accounts of the 45 sampled companies spanning from 2012 to 2016. The analysis of the sample is shown in Table 4.1 as thus:

**Table 4.1***Analysis of Sample Used*

Year of Financial Report	Status of Firms	No. of Firms	Percentage
2012 to 2016	Available	45	82%
2012 to 2016	Not Available	10	18%
<b>Total</b>		<b>55</b>	<b>100%</b>

However, the companies with the available data for the study period under review were 45 that served as the sample and represent 82% of the population of this study, which were considered adequate after considering previous similar studies in Nigeria. For instance, Akingunola, Adekunle, and Adedipe (2013) used 24 banks for their studies out of the total quoted financial service firms in Nigeria, while Fatimoh (2012) in her study, considers only nine (9) banks for 10 years-period (2001-to-2010) as the sample. As such, the sample used in this study is considered to be adequate. On the same line, the sample maintained by this study arises based on the fact that, they are those companies whose annual reports and accounts are available for the period under review (2012-to-2016).

**4.2.1 Distribution of Sample of the Study Based on Company Type****Table 4.2***Sample of Companies According to Type*

S/N	Company Type	Number	Observations	% of Observations
1	Banks	15	75	33.33
2	Nonbanks	30	150	66.67
	<b>Total</b>	<b>45</b>	<b>225</b>	<b>100.00</b>

Table 4.2 reports the distribution of the sample of this study based on company type (banks and nonbanks). The study covers financial service firms listed on the Nigerian Stock Exchange (NSE) over a five (5) year period ranging from 2012 to 2016 that consists of banks and nonbanks. The nonbanks operators have the highest frequency of 30 firms and the highest number of observations of 150 that constitutes 66.67% of the sample. Nonbanks financial companies in Nigeria refer to companies that do not offer purely commercial banking but engaged into other financial services like provision of loans, discounting of bills, and safeguarding of business against loss (for instance, insurance companies, mortgage companies, and thrift companies). While bank operators have the frequency of 15, with a number of observations of 75 that constitutes 33.33% of the sample in this study. In Nigeria, banks are termed as 'Deposit Money Banks' (DMBs), that is those banks that engaged in a purely commercial banking services including; acceptance of public deposits, granting of loans, and providing other investment products.

### 4.3 Descriptive Statistics

This subsection presents the descriptive statistics as well as the univariate test (t-test) results for the dataset as used for this study. Descriptive statistics usually give the description of samples of subjects in terms of variation or combination of variables (Tabachnick & Fidell, 2007). In addition, Ott and Longnecker (2010) state that “good descriptive statistics enable us to make sense of the data by reducing a large set of measurements to a few summary measures that provide a good, rough picture of the original measurements” (p. 57). Therefore, Table 4.3 presents the descriptive statistics

involving the mean, minimum, maximum, and standard deviation of the continuous variables in this study, which were computed by means of STATA version 14.

**Table 4.3**

*Descriptive Statistics for Full Sample (N = 225)*

Variable	Unit	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
ROA	Ratio	0.252	0.215	0.014	0.756	0.794	2.680
ROE	Ratio	0.136	0.121	-0.168	0.464	0.383	2.894
MTB	Ratio	0.126	0.107	0.007	0.378	0.794	2.680
BSZ	Number	10.587	3.314	6.000	20.000	0.775	2.543
BCOMP	Ratio	0.643	0.115	0.250	0.917	0.110	2.989
BMT	Number	5.613	1.734	3.000	13.000	1.179	4.848
CEOT	Number	3.667	1.822	1.000	9.000	0.394	2.574
BEXP	Ratio	0.276	0.104	0.111	0.667	0.860	4.457
RMCS	Number	5.591	1.714	3.000	14.000	1.166	5.708
RMCC	Ratio	0.612	0.114	0.200	0.857	-0.533	3.855
RMCM	Number	3.729	1.135	1.000	7.000	-0.116	3.741
RMPD	Number	5.307	1.153	3.000	7.000	-0.337	2.442
FSZ	Obtained Ratio	24.585	2.190	21.488	29.177	0.751	1.991
LEV	Ratio	0.618	0.404	0.001	3.025	0.163	2.435
FAG	Number	34.404	16.082	9.000	94.000	1.278	4.990
ASTAN	Ratio	0.101	0.104	0.0001	0.492	1.484	4.659

**Note:** BSZ= board size; BCOMP= board composition; BM = board meeting; CEOT= chief executive officer's tenure; BEXP= board expertise; RMCS= risk management committee size; RMCC= risk management committee composition; RMCM= risk management committee meeting; RMPD= risk management practice and disclosure; FSZ= firm size; LEV= leverage; FAG= firm age; ASTAN= asset tangibility; ROA= return on assets; ROE= return on equity; MTB= market-to-book ratio.

In view of performance measures, the mean value of return on asset (ROA) is 0.25, a minimum of 0.01, and a maximum of 0.76. The standard deviation is 0.21 depicting a slight variation in the return of assets across the sampled firms in the study. In essence,

the mean value of 0.25 for ROA depicts that 25% of profits of the sample firms was generated from the companies' assets. This shows that the management of such companies are utilizing their resources judiciously in generating returns. While the minimum value of ROA is 0.01, meaning that 1% is the minimum return (in terms of ROA) generated from the assets of the sampled firms during the study period. Moreover, the maximum value of 0.76 indicates that 76% was generated as returns (ROA) from the assets of listed financial service firms in Nigeria. On the overall, it can be said that corporate managers of listed financial service firms in Nigeria are effectively performing their agency relationship the shareholders of the companies.

On the other hand, the average value of return on equity (ROE) is 0.14, minimum of -0.17, with a maximum of 0.46, and a standard deviation of 0.12, indicating a thin variation across firms. Nevertheless, the average value of 0.14 portrays that 14% of returns (ROE) was generated from owners' equity. This means that as agent of the stockholders, the corporate managers are effectively and efficiently working in order to ensure that returns expected are obtained by the shareholders. The minimum value of -0.17 shows a downfall in returns on shareholders' equity by 17%, while the maximum score of 0.46 reveals a 46% return from shareholders' equity which is quite favorable. Whereas, market-to-book ratio (MTB) has a mean score of 0.13, with a minimum of 0.007 and a maximum of 0.38, while the standard deviation is 0.11, which is also showing a narrow variation across the sampled firms in this study. The mean score of 0.13 for MTB indicates that the average returns on the market value of their assets is 13%, which is considerably favorable in most stock markets. The minimum value of MTB across the firms is 0.007 (that is 0.7%) which is a bit lower, and a maximum of

0.38 for MTB is considered a favorable performance for the listed financial service firms in Nigeria.

Based on the summarized descriptive statistics analysis as presented in Table 4.3, it is perceptible that the mean value for Board Size (BSZ) within the listed Financial Service companies operating in Nigeria is 10, with a minimum of 6, maximum value of 20, and a standard deviation of 3.31 (meaning that, variations in board size between the companies is not wide). In this regard, the minimum board size of 6 is in line with studies on CG in Nigeria (for instance, Pantamee, 2014). More so, the result is also in line with the requirement of the NCCG 2011 which requires that publicly traded companies should have a minimum size of 5 members of their board. Likewise, this has coincided with the opinion of Lipton and Lorsch (1992) who asserted that the reasonable number of the company board of directors should be between seven and eight.

Regarding board composition (BCOMP), the result from Table 4.3 discloses that the mean value of board composition is 0.64 (64%), the minimum value of 0.25 (25%), maximum of 0.92 (92%) and a standard deviation of 0.11 (12%). This indicates that the board of quoted financial service firms in Nigeria comprised of both executive and non-executive directors. In essence, this result coincides with the requirement of the NCCG 2011 which requires that publicly traded companies should have a majority of non-executive directors on their boards. This is also consistent with the position of Lin (2011) who discoursed that non-executive directors should be majorly in a board of company because the independence of the board has a significant monitoring role.

Furthermore, the descriptive statistics result concerning board meeting (BMT) shows that the average board meeting is 5.613, a minimum and maximum values of 3 and 13 respectively, and a standard deviation of 1.73. The result indicates that some companies do not strictly follow the requirements of NCCG 2011 of a minimum of 4 meetings per annum by publicly traded companies in Nigeria in order to effectively perform their oversight function and monitor the performance of management. Nevertheless, some companies have even met up to 13 times in a year, while the average number of meetings with some companies in the sample is 5.613. The standard deviation of 1.73 indicates that the variation of a number of meetings between the sample firms is not wide.

In addition, the average tenure of chief executives (CEOT) of listed financial service firms in Nigeria is 3.67, the minimum value of 1, maximum of 9, and a standard deviation of 1.82. This indicates that the minimum year a CEO can spend in his position across the firms is 1 year, maximum of 9 years, and an average of 3 years 6 months. Additionally, the standard deviation of 1.82 indicates that the variation in tenure of CEO across financial service firms in Nigeria is not wide. The NCCG 2011 stipulates that the CEOs of publicly traded companies should hold office for the period of at least 3 years, subject to re-election at the annual general meeting (AGM). Hence, the result is in line with the provision of the NCCG 2011. Similarly, the average CEO tenure of 3 years is consistent with Sanda *et al.* (2011), who document that the average tenure of CEO in the Nigerian quoted firms is 3.06.

The descriptive result on board expertise (BEXP) from Table 4.3 shows that the mean score of BEXP is 0.27 (27%), a minimum score of 0.11 (11%) and a maximum value of 0.67 (67%), while the standard deviation score stood at 0.104 (10.4%). This indicates

that the average number of board members of financial service firms in Nigeria that serve on the board of other firms constitute 27%, minimum of 11% and a maximum of 67%. In regards to the NCCG 2011, it does not stipulate the limit of a number of concurrent directorships a director of a company may hold. However, Yatim (2010) argues that board expertise is imperative in ensuring that the oversight function of the board is successfully carried out.

Considering the risk management committee size (RMCS), the result from Table 4.3 shows that it has an average score of 5.59, with a minimum and maximum of 3 and 14 respectively, and a standard deviation of 1.71. Contrastingly, Pantamee (2014) reports that the average risk management committee size (RMCS) of quoted petroleum marketing companies in Nigeria is 4.86. Albeit, the NCCG 2011 encourages companies on the establishment of risk management committee distinct from the audit committee, but does not stipulate the exact size the committee should be. In this case, the size of the committee is based on the size and requirements of the firm.

Moreover, the result from Table 4.3 demonstrates that the mean value of risk management committee composition (RMCC) is 0.61, a minimum score of 0.20, with a maximum value of 0.86, and a standard deviation of 0.11. As such, the outcome specifies that the risk management committee of financial service firms in Nigeria comprises of both executive and non-executive directors. The result shows that non-executive directors on the committee constitute an average of 61%, a minimum of 20%, and a maximum of 86%. To Pantamee (2014), the average value of risk management committee composition (RMCC) in the Nigerian petroleum marketing companies is 0.73. In light of this, the NCCG 2011 requires that board committees of publicly traded

companies should compose of a majority of non-executive directors, and also be chaired by a non-executive director. Ng *et al.* (2012) suggest that independence (composition) of committee members is a significant instrument in corporate governance.

Regarding risk management committee meeting (RMCM), the descriptive result in Table 4.3 displays that it has an average value of 3.729, a minimum and maximum score of 1 and 7 respectively, with a standard deviation value of 1.13. The result indicates that the committee meets averagely 4 times per annum, while some of the companies in the sample meet only once in the periods under review. However, the maximum time that the risk management committee of listed financial service firms in Nigeria meets is 7 times per annum. Although, the NCCG 2011 does not specifically state the number of meetings required to be held by the committee, but the frequency of meeting portrays the level of commitment by a committee in performing their predetermined functions (Muhamad Sori & Mohamad, 2009).

However, the descriptive output from Table 4.3 delineates that risk management practice and disclosure (RMPD) has an average score of 5.31, a minimum value of 3, and a maximum of 7, while the standard deviation stood at 1.15. Therefore, based on the rating of RMPD intensity provide in the previous chapter (chapter three) in Table 3.5, the mean value of 5.31 indicates that the disclosure of risk management is averagely strong, while the minimum value of 3 means weak disclosure, and a maximum of 7 shows very strong disclosure. In light of this, the NCCG 2011 has required all publicly traded companies in Nigeria to adequately disclose their procedures and practices on risk management. To actually know the extent of disclosure, the analysis results

regarding the frequencies of each risk disclosure category and the overall frequencies of RMPD are presented in the subsequent subsections.

While considering control variables, result from Table 4.3 indicates that firm size (FSZ) has a mean of 24.59, a minimum of 21.49, and a maximum of 29.18, while the standard deviation score stood at 2.19. The size of a firm is considered as an important determining factor of board structure and size, and also affects performance, hence, used as a control variable in CG studies (Ghosh, 2006; Patro *et al.*, 2003). For leverage (LEV), the result from Table 4.3 shows that its mean value is 0.62, minimum of 0.001, and a maximum of 3.03, while the standard deviation is 0.40. Leverage, which is measured as total debts to total assets is considered to have an impact on a company's cash flow and control. Based on the result obtained, the average value of 0.62 means that some of the listed financial service firms in Nigeria have 62% as debt in their capital structure (that is external financing). In addition, minimum of leverage is 0.1%, and a maximum of 303% (highly leveraged, that may lead to loss of control by the real owners of the business).

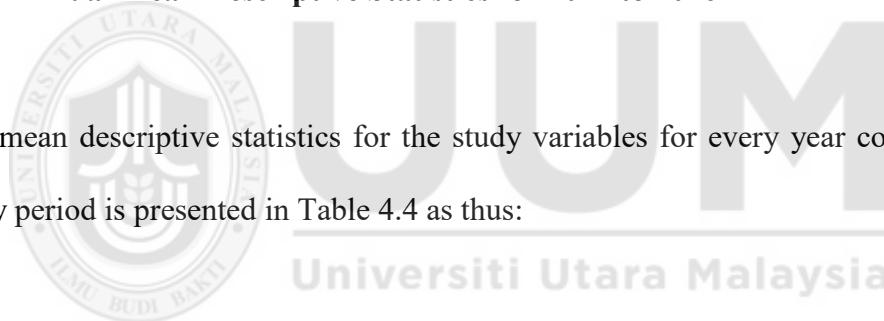
In regards to firm age (FAG), the descriptive results in Table 4.3 indicate that it has an average score of 34.40 years, with a minimum of 9 years and maximum of 94 years. The standard deviation of firm age is 16.08 in the listed financial service firms in Nigeria. Relatively, the age of the firm is presumed to have an effect on the performance of firms because firms that have been in operation for a longer period will have an economic advantage over smaller ones (Ward & Mendoza, 1996), even though this presumption is now overtaken by technological advances. However, Ehikioya (2009) examines the relationship between CG mechanisms and performance of listed companies in Nigeria.

The author used 107 firms as the sample covering the period of 1998 to 2002. The result shows that the average age of firms operating on the Nigerian Stock Exchange is 19.40 years.

Lastly, as to asset tangibility (ASTAN), the outcome of descriptive analysis from Table 4.3 shows an average value of ASTAN to be 0.10, a minimum score of 0.00, and a maximum of 0.49, whereas, the standard deviation is 0.10. Asset tangibility which is measured as the composition of tangible assets to total assets is also considered to have an effect on the outcome of a firm in terms of performance (Mishra *et al.*, 2001).

#### **4.3.1 Annual Mean Descriptive Statistics for 2012 to 2016**

The mean descriptive statistics for the study variables for every year covered by the study period is presented in Table 4.4 as thus:



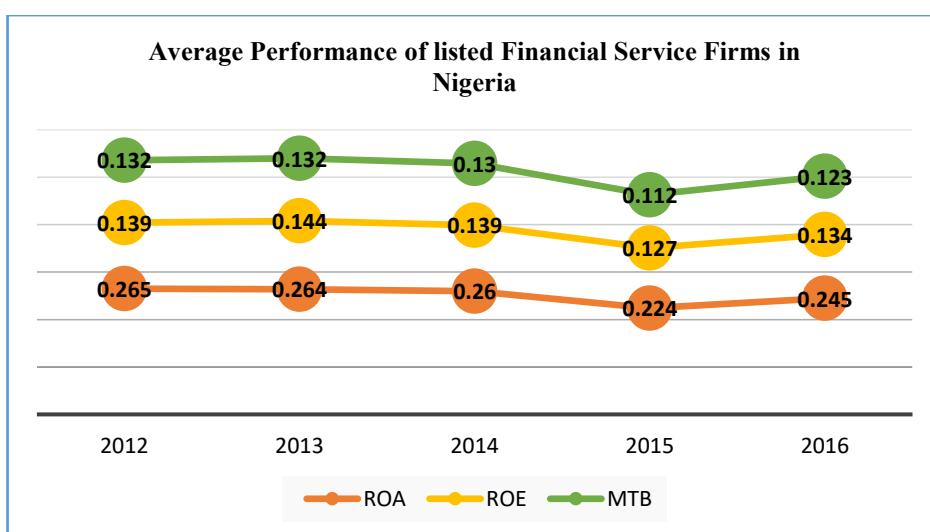
**Table 4.4***Mean Descriptive Statistics from 2012 to 2016 for full Sample*

Variables	2012	2013	2014	2015	2016	Overall
<b>Dependent</b>						
ROA	.265	.264	.260	.224	.245	.252
ROE	.139	.144	.139	.127	.134	.136
MTB	.132	.132	.130	.112	.123	.126
<b>Independent</b>						
BSZ	10.67	10.60	10.489	10.422	10.756	10.587
BCOMP	.643	.637	.642	.648	.645	.643
BMT	5.467	5.356	5.556	5.844	5.844	5.613
COET	3.044	3.444	3.733	4.133	3.978	3.667
BEXP	.269	.274	.274	.290	.280	.278
RMCS	5.444	5.60	5.467	5.644	5.80	5.591
RMCC	.606	.642	.605	.604	.605	.612
RMCM	3.533	3.60	3.667	3.911	3.933	3.729
RMPD	4.20	5.267	5.333	6.244	5.489	5.307
<b>Control</b>						
FSZ	24.536	24.540	24.564	24.678	24.607	24.585
LEV	.607	.597	.667	.610	.608	.618
FAG	32.822	33.80	34.80	35.80	34.80	34.404
ASTAN	.098	.101	.101	.103	.100	.101
N	45	45	45	45	45	225

Considering firm performance, the descriptive statistics from Table 4.4 shows that the percentage of return on assets (ROA) is somewhat stable over the study period with 0.265 (26.5%) in 2012 and 0.245 (24.5%) in 2016 even though with a slight decrease. The overall mean of ROA is 0.252 (25.2%). For return on equity (ROE), there is also a stable mean score even though with a slight decrease over the study period. The ROE has a mean of 0.139 (13.9%) in 2012 and 0.134 (13.4%) in 2016, while the overall mean is

0.136 (13.6%). The stability in ROA and ROE is an indication of an effective and efficient utilization of the limited resources at the corporate managers' disposals which is favorable to the expectations of the shareholders. Meanwhile, there is a slight decrease regarding the mean score of market-to-book (MTB) ratio over the years under review, because the mean decreases from 0.132 (13.2%) in 2012 to 0.123 (12.3%) in 2016, and the overall mean stood at 0.126 (12.6%). The decrease in the mean of MTB may be due to the insurgency caused by 'Boko Haram' in Nigeria, which affected various sectors of the economy, including activities in the capital market that face lower turnover of stocks in the market.

Moreover, Figure 4.1 also depicts the trends of financial performance (return on assets, return on equity, and market-to-book ratio) of listed financial service firms in Nigeria over the study period. The trends of the firm performance are for five years, from 2012 to 2016. Over the years, performance (financial and market) of the financial service firms in Nigeria has shown a steady movement as depicted in Figure 4.1 as thus:



**Figure 4.1**

*Average Performance of Listed Financial Service Firms from 2012 to 2016*

From Figure 4.1, it can be seen that the average performance of listed financial service firms in Nigeria was moving on a steady track, until in 2015 when it drops down and later picks up in 2016. The resultant decreased of performance in the year 2015 is due to a persistent increase in the rate of inflation from January 2015 to the end of the year, as noted by CBN (2016). Moreover, the decrease has been more often to MTB which occurs due to the poor performance of the Nigerian Stock Exchange (NSE) market in 2015 ("A Review of Nigerian Stock Exchange", 2015). Moreover, other factors that affect the activities of companies listed on the Nigerian Stock Exchange as argued by financial analysts include foreign exchange problems, deteriorating crude oil price, alongside exodus of foreign portfolio investors.

According to a report by Okonji (2016), business activities in Nigeria halted due to skepticism of uncertainty as a result of extending the 2015 general elections which significantly affect business confidence. Even though the election was successfully conducted and tension was relaxed after the election, yet, the business environment became tough due to delay in appointing ministers and in approving the 2016 budget, which affected every business in Nigeria as there is no enough liquidity in circulation. Moreover, the new policy of Treasury Single Account (TSA) which requires all federal government agencies to pay their revenues directly into one single account of the central government, has drastically affected the activities of Nigerian banks, hence, reduce the amount of liquidity in circulation, and eventually affects most businesses in the country.

However, based on the result from Table 4.4, the mean of board size is relatively stable within the study period with 10.67 in 2012 and 10.76 in 2016. On the overall, the average board size in the listed financial service firms in Nigeria is about 10 members. Regarding

board composition, there is also a stable trend over the study period because the mean is 0.643 (64.3%) in 2012 and 0.645 (64.5%) in 2016. In the overall, the mean value remains at 0.643 (64.3%). Therefore, this indicates that listed financial service firms are complying with the requirements of the NCCG 2011 that the board should comprise of more outside directors than executive directors. The gathering of the board from one period to the other is seen as a medium via which vital information can be shared and obtained which can be used by the board to carry out their functions. Board meeting (BMT) remained stable at 5.5 times in 2012 and 5.8 times in 2016. The overall mean stood at 5.6 times. This implies that listed financial service firms in Nigeria complied to the requirement of the NCCG 2011.

The tenure of CEO (CEOT) has an insignificant increase over the study period with 3.04 in 2012 and 3.98 in 2016. This implies that the sample firms comply with the CG code 2011, which requires that CEOs should hold office for a term of three (3) years subject to re-election at the Annual General Meeting (AGM) of a company. The mean of board expertise (BEXP) also remains stable over the study period, having 0.269 (26.9%) in 2012, although with a slight increase in 2016, having 0.28 (28%). This shows that the sampled firms have fewer directors serving on the board of other firms.

Considering the risk management committee size (RMCS), the mean value remains steady with 5.4 in 2012 and 5.8 in 2016. The overall mean stood at 5.6, which is considered reasonable, even though the NCCG 2011 did not specifically state the size of the risk management committee required. In this regard, Subramaniam *et al.* (2009) held that “the larger the number of members on the board, the greater the opportunity to find directors with the necessary skills to coordinate and be involved in a sub-committee

devoted to risk management” (p. 324). On the risk management committee composition (RMCC), the mean scores over the years under review are steady with 0.606 (60.6%) in 2012, and 0.605 (60.5%) in 2016 and the overall stood at 0.612 (61.2%). Just like board composition (BCOMP), the risk management committee composition (RMCC) also has a higher proportion of non-executive directors than the executive directors.

The mean of risk management committee meetings (RMCM) in 2012 is 3.5 times, while in 2016 is 3.9 times and the overall mean is 3.7 times. This shows a considerable steadiness in the number of meetings held by risk management committee of financial service firms in Nigeria. Discouraging on the risk management practice and disclosure (RMPD), there was a progressive increase from 4.2 in 2012 to 5.5 in 2016, while the overall mean stood at 5.3. This shows an increase in compliance with the NCCG 2011 that requires all listed financial service firms in Nigeria to disclose their activities on risk management in their annual reports so as to improve performance. This is consistent with the regression results regarding return on assets and market-to-book ratio in the subsequent subsection.

On control variables, the mean of firm size (FSZ) remains stable over the years under review with 24.5 in 2012, 24.6 in 2016 and overall mean of 24.6. Leverage (LEV) also has a stable mean score over the study period having 0.607 in 2012 and 0.608 in 2016, with an overall mean of 0.618. This implies that the capital structure of listed financial service firms in Nigeria has a higher proportion of debts than assets, which those not mean a good signal to their survival. For firm age (FAG), the mean in 2012 is 32.8 years, and in 2016 is 34.8 years with an overall mean of 34.4 years. To asset tangibility, the mean score in 2012 is 0.098, and in 2016 is 0.10, while the overall mean stood at 0.101.

The lower percentage in the asset tangibility of listed financial firms may be due to the fact that the firms are financial services oriented and not manufacturing concerns, as such they might not be dealing with many tangible assets.

#### **4.3.2 Descriptive Statistics for Banks and Non-Banks**

The descriptive statistics for banks and nonbanks as contained in the sample of this study is presented in Table 4.5. The sampled banks in this study constitute a total number of 75 year-observations (i.e., 15 banks for 5 years) while that of nonbanks constitute a total of 150 years-observations (i.e., 30 companies for 5 years). The result from Table 4.5 shows that the average performances of banks in Nigeria are 18.5%, 11.3%, and 9.3% for ROA, ROE, and MTB respectively, while that of nonbanks are 28.5%, 14.8%, and 14.2% respectively, which is a bit higher than those of banks. The difference may be owing to the introduction of Treasury Single Account (TSA) policy which directs all government agencies, departments, and parastatals to pay revenues directly into the federal government single account as against to the previous approach of depositing all revenues into government accounts with various Deposit Money Banks (DMBs) in Nigeria. In view of this, most activities of DMBs were affected, resulting in dwindling performances. The annual means descriptive statistics is displayed in Table 4.5 as thus:

**Table 4.5***Descriptive Statistics for Banks and Non-Banks Financial Service Firms*

Variables	Banks				Non-Banks			
	Mean	Std. Dev.	Minimum	Maximum	Mean	Std. Dev.	Minimum	Maximum
<b>Dependent</b>								
ROA	0.185	0.196	0.014	0.659	0.285	0.217	0.014	0.756
ROE	0.113	0.106	-0.028	0.353	0.148	0.126	-0.168	0.464
MTB	0.093	0.098	0.007	0.329	0.142	0.108	0.007	0.378
<b>Independent</b>								
BSZ	14.280	2.587	7.000	20.000	8.740	1.700	6.000	15.000
BCOMP	0.618	0.114	0.350	0.917	0.656	0.114	0.250	0.889
BMT	6.347	2.023	3.000	13.000	5.247	1.442	3.000	10.000
CEOT	3.960	1.969	1.000	8.000	3.520	1.733	1.000	9.000
BEXP	0.297	0.057	0.188	0.455	0.268	0.120	0.111	0.667
RMCS	6.960	1.728	3.000	14.000	4.907	1.233	3.000	10.000
RMCC	0.622	0.090	0.4000	0.857	0.608	0.125	0.200	0.833
RMCM	4.267	0.935	1.000	7.000	3.460	1.133	1.000	7.000
RMPD	5.507	1.120	3.000	7.000	5.207	1.160	3.000	7.000
<b>Control</b>								
FSZ	27.456	1.083	25.007	29.177	23.149	0.628	21.488	25.107
LEV	0.741	0.295	0.001	0.995	0.556	0.436	0.104	3.025
FAG	32.867	14.756	11.000	70.000	35.173	16.700	9.000	94.000
ASTAN	0.031	0.013	0.000	0.053	0.135	0.112	0.002	0.492
<b>N</b>	<b>75</b>				<b>150</b>			

Considering the board size (BSZ), the mean is 14.28, minimum of 7, and a maximum of 20 members for banks. While for nonbanks, the mean value stood at 8.74, minimum of 6, and a maximum of 15 members which is lower than that of banks. Nevertheless, the average number of board size (BSZ) for both banks and nonbanks do not deviate from the requirements of the NCCG 2011, and it shows that the size is optimal that will make them carry out their duties effectively. For board composition (BCOMP), the mean is 0.618 (61.8%) indicating that the boards of banks in Nigeria are dominated by non-executive directors which is given the board more power to make decisions independently. The board composition for banks has a minimum of (0.114) 11.4% and a maximum of (0.917) 91.7%. Whereas, the average value of board composition for non-banks financial service firms in Nigeria is (0.656) 65.6%, a minimum of (0.25) (25%), and a maximum of 0.889 (88.9%), meaning that the boards of nonbanks are also dominated by the non-executive directors. Meanwhile, this result indicates that the percentage of board composition of nonbanks companies is higher than that of banks in Nigeria.

Equally important, the average number of board meetings (BMT) for banks is 6.3 times, minimum of 3 and maximum of 13 times. On the other hand, nonbanks have average meetings of 5(5.25), with a minimum and maximum of 3 and 10 times respectively. Important to realize, the board meets regularly in order to be discussing important issues regarding their organization, because board meeting is an important resource for improving the effectiveness of boards of directors (Conger *et al.*, 1998). Regarding CEO tenure (CEOT), the mean in years is 3.96, minimum of 1 year, and a maximum of 8 years in Nigerian banks. While for nonbanks, the average number of years of a CEO's

tenure (CEOT) is 3.52, minimum of 1 year and a maximum of 9 years which are almost similar to those of banks.

Then again, the mean of board expertise (BEXP) is (0.297) 29.7% and (0.268) 26.8% respectively for banks and nonbanks financial service firm in Nigeria, indicating that boards of Nigerian banks and nonbanks financial service firms do not have a significant number of directors of other companies serving on their boards. Although, the minimum percentage of board expertise is (0.188) 18.8% and the maximum is (0.455) 45.5% for banks, meaning that among the banks, there are some with a large proportion of other companies' directors on their boards. While for nonbanks, the minimum proportion of board expertise (BEXP) is (0.111) 11.1%, and a maximum of (0.667) 66.7%. This specifies that nonbanks have more directors with multiple directorships serving on their boards than banks. This may also be the reason for nonbanks having higher performance (ROA, ROE, and ROE) than banks in Nigeria. As it is believed that having a significant number of board expertise (multiple directorships) on a company's board may influence company's performance (Elyasiani & Zhang, 2015).

From the descriptive result in Table 4.5, the size of the risk management committee (RMCS) of banks has a mean of 6.96, a minimum of 3 members and a maximum of 14. While the risk management committee size (RMCS) of nonbanks is 4.91, a minimum of 3 and a maximum of 10 members, a bit lower than those for banks. For risk management committee composition (RMCC), the mean value for banks is (0.622) 62.2%, while that of nonbanks is (0.608) 60.8%. This shows that the risk management committee of banks and nonbanks composed of a larger proportion of non-executive

directors, which will give them more powers to make viable decisions regarding the risk appetite of their companies.

More so, the risk management committee composition (RMCC) for banks has a minimum of (0.40) 40% and a maximum of (0.857) 85.7%. To nonbanks, the minimum proportion of non-executive directors in the risk management committee is (0.20) 20%, and a maximum of (0.833) 83.3%. In terms of risk management committee meetings (RMCM), the mean is 4 (4.3) times for banks, and 3 (3.46) times for nonbanks (a bit lower than that of banks). Notwithstanding, the average meetings of the risk management committee for both banks and nonbanks are in concordance with the NCCG 2011 stipulations.

Further, with the mean of 5.51 for risk management practice and disclosure (RMPD) for banks, and 5.21 for nonbanks, the result indicates that there is strong disclosure of risk management practice in the Nigerian financial service firms, for the reason that 5.51 and 5.21 falls within the rating parameter of risk disclosure provided in Table 3.5 in chapter three of this study. Specifically, this is consistent with the requirements of the Nigerian CG Code 2011, that publicly traded companies should disclose in their annual reports and accounts, all information regarding their procedures and practices of risk management.

For the control variables, firm size (FSZ), leverage (LEV), firm age (FAG), and asset tangibility (ASTAN), they have average values of 27.46, 0.741, 32.87, and 0.031 respectively for banks. While for nonbanks, the mean values of firm size (FSZ), leverage

(LEV), firm age (FAG), and asset tangibility (ASTAN) are 23.15, 0.56, 35.17, and 0.135 respectively as displayed in Table 4.5.

#### **4.3.3 Univariate Analysis**

For the purpose of comparing the mean scores of two different groups of companies (banks and non-banks) in this study, a form of univariate analysis known as the independent sample t-test was conducted and the result is presented in Table 4.6. Normally, the independent sample t-test is used when one wants to compare the mean scores of two different groups of people or condition (Pallant, 2005). The independent-samples t-test conducted to compare the mean scores for banks and nonbanks for the independent, dependent, and control variables, shows that there is a statistically significant difference on ROA between banks and nonbanks ( $t = -3.35, p < .01$ ). In the same vein, there is a significant difference in the mean scores of ROE banks and nonbanks financial service companies ( $t = -2.08, p < .05$ ). Likewise, the result of the t-test shows that there is a significant difference on MTB between the two groups of companies (banks and non-banks) in this study ( $t = -3.351, p < .01$ ).

The significant difference in the mean scores of banks and nonbanks on all the three dependent variables (ROA, ROE, and MTB) in this study do not occur as a surprise due to several economic activities (for example., drop-down of crude oil prices, fluctuations in foreign exchange rate, and over dependence on government funds) that affects the operations of financial service firms in Nigeria especially banks. For instance, Kontein (2017) reports that banks in Nigeria faced a severe problem of foreign currency liquidity due to the economic recession and crash in the prices of crude oil in 2015. As a

consequence, these have and will continue weakening the core earnings generation of banks in the near future.

**Table 4.6**

*Univariate Comparisons for the Study Sample of Banks and Non-Banks Financial Companies in Nigeria*

Variables	Banks	Non-Banks	t-test	
	Mean	Mean	t-value	p-value
<b>Dependent</b>				
ROA	0.185	0.285	-3.352	0.000***
ROE	0.113	0.148	-2.078	0.039**
MTB	0.093	0.142	-3.351	0.000***
<b>Independent</b>				
BSZ	14.280	8.740	19.224	0.000***
BCOMP	0.618	0.656	-2.342	0.020**
BMT	6.347	5.247	4.692	0.000***
CEOT	3.960	3.520	1.714	0.088
BEXP	0.297	0.268	1.971	0.050
RMCS	6.960	4.907	10.249	0.000***
RMCC	0.623	0.608	0.858	0.392
RMCM	4.267	3.460	5.324	0.000***
RMPD	5.507	5.207	1.850	0.066
<b>Control</b>				
FSZ	27.456	23.149	37.697	0.000***
LEV	0.741	0.556	3.314	0.001***
FAG	32.867	35.173	-1.014	0.312
ASTAN	0.031	0.135	-8.030	0.000***
N	75	150		

Note:

\*\*\* Significant at the 0.01 level

\*\* Significant at the 0.05 level

\* Significant at the 0.1 level

Furthermore, another factor the effects the operations of banks in Nigeria is the introduction of Treasury Single Account (TSA) which aims at consolidating all the

inflows from various government agencies into one and only single account at the Central Bank of Nigeria (CBN). The implementation of TSA becomes unruly for banks in Nigeria because of states and other government agencies that usually fix deposited a huge amount of money at once, can no longer do that, since all inflows have to be posted into the nation's general TSA (Kontein, 2017). Prior to the implementation of TSA, banks usually use the huge amount of fixed deposits by states and other government agencies to issue out loans and engaged in other financial transactions in order to generate interest and revenues for itself. Hence, the introduction of TSA has become a major challenge for banking operation in Nigeria, especially in 2015 (Kontein, 2017).

However, the result of t-test in Table 4.6 displays that there are statistically significant differences (at a cut-off of 0.05) between banks and nonbanks financial service companies on the independent variables except for CEO tenure, board expertise, risk management committee composition, and risk management practice and disclosure that are significant at the 0.1 level. This implies that the independent variables that are significant at the 0.05 level (board size, board composition, board meeting, risk management committee size, and risk management committee meeting) are influenced by the categorization of the companies into whether it is bank or non-bank. For instance, the mean of t-test for board size (BSZ) is 14 for banks and 8 for nonbanks, showing a wide disparity. Board composition (BCOMP) for banks is 62% and for nonbanks is 66%, and board meeting (BMT) for banks is 6 times, for nonbanks is 5. For risk management committee size (RMCS), mean for banks is 7, while for nonbanks is 5. There is also unequal mean for risk management committee meeting (RMCM) between banks and nonbanks where their mean scores are 4 and 3 respectively.

While the independent variables that show no significant difference between banks and nonbanks at the cutoff level of 0.05 include: CEO tenure (CEOT), board expertise (BEXP), risk management committee composition (RMCC), and risk management practice and disclosure (RMPD). This implies that the affected variables are not influenced by the categorization of companies into, whether it is bank or non-bank. However, there is a statistically significant difference between banks and nonbanks in all the control variables in this study except for firm age that is not statistically significant ( $p > 0.05$ ). This means that firm size, leverage, and asset tangibility are influenced by categorization of the companies into banks and nonbanks, while it is not in the case of firm age. All these discrepancies (in variables) between banks and nonbanks in Nigeria may be due to their various customer needs. Because customer needs in the bank are more often than nonbanks in Nigeria, which occurs on a daily basis with an increasing rate.

#### **4.4 Frequency of Risk Management Practice and Disclosure Intensity**

Prior to provide answer to the first research question in this study which was on the extent of disclosure of risk management practice by listing financial service firms in Nigeria, the frequency distribution of the 7 items of Risk Management Practice and Disclosure (RMPD) categories are provided. However, the 7 items of RMPD categories have been explained already in the previous chapter (chapter three, Table 3.4) that include: (1) governance structure related to risk management, (2) risk management committee responsibility and function, (3) description of risk management policies and objectives, (4) audit committee responsibility and function, (5) capital/market risk disclosure, (6) environmental risk disclosure, and (7) operational/other risk disclosure. The amassing of these 7 items of risk categories on a panel data basis provide the overall

intensity of risk management practice and disclosure (RMPD) of listed financial service firms in Nigeria.

In any case, it is worthy to mention that information on some of the categories (categories 1, 2, and 4) of risk management practices were fully disclosed, while others (categories 3, 5-to-7) were partially disclosed. The reason for the nondisclosure may stem from the fact that information disclosure consumes higher cost to corporate entities. For instance, if not because of introducing the Electronic Data Gathering, Analysis and Retrieval (EDGAR) information system (used by the US Securities and Exchange Commission), a total amount of \$0.15/page is being spent daily by the US companies on information disclosure involving 3 million pages daily.

In Nigeria, Pantamee (2014) highlights that for a better information disclosure on Corporate Social Responsibility (CSR) by the listed petroleum marketing companies in Nigeria, number of board meetings alongside the board size of the companies should be reduced since they involved higher costs which also influence profitability. This means that a huge amount of money is involved in disclosing of information by corporate entities in their annual reports. Therefore, this may be the reason why some information on the categories of risk management practices were not disclosed by the sampled firms in this study since some of the companies may be in favorable condition (having a higher profitability) to disclose information on their risk practices, others may not (that is they are having lower profitability or loss). The frequency results of the categories of risk management practices are presented in the tables that follow.

**Table 4.7***Governance Structure Related to Risk Management*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	225	100%
No Disclosure	0	0%
<b>Total</b>	<b>225</b>	<b>100%</b>

The frequent result obtained from Table 4.7 shows that disclosure regarding governance structure related to risk management which involves the availability of risk management committee is made fully by all the listed financial service firms in Nigeria. Moreover, the disclosure on this was made completely throughout the period under review across the sampled firms. This indicates that listed financial service firms in Nigeria have adhered to the requirements of the NCCG 2011 on the disclosure of this risk item category.

**Table 4.8***Risk Management Committee Responsibility & Function*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	225	100%
No Disclosure	0	0%
<b>Total</b>	<b>225</b>	<b>100%</b>

From the result in Table 4.8, it has become apparent that disclosure of information on risk management committee responsibility and function appears up to 225 times (100%). This means that listed financial service firms in Nigeria have fully tendered explanations on the responsibilities and functions of their risk management committee during the period covered by this study. This also shows strict adherence to the requirements of the NCCG 2011 on this risk disclosure item.

**Table 4.9***Description of Risk Management Committee Policies and Objectives*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	157	69.8%
No Disclosure	68	30.2%
<b>Total</b>	<b>225</b>	<b>100%</b>

The frequency result in Table 4.9 shows that there is significant disclosure on the description of risk management committee policies and objectives in the listed financial service firms in Nigeria. This can be evidenced by having a view of the disclosure status, which has a frequency of 157 (69.8%), and nondisclosure status that has a frequency of 68 (30.2%). Even though the result shows that there are companies that do not disclose information on this particular risk disclosure category, yet, there is a higher proportion of companies that adhered to the requirements of the NCCG 2011 on this risk category disclosure item.

**Table 4.10***Audit Committee Responsibility and Function*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	225	100%
No Disclosure	0	0%
<b>Total</b>	<b>225</b>	<b>100%</b>

The result in Table 4.10 shows that disclosure regarding audit committee responsibility and function which involves the availability of audit committee structure and explanations to their responsibility is made fully by all the listed financial service firms in Nigeria. Moreover, the disclosure on this was made completely throughout the period under review across the sampled firms. This indicates that listed financial service firms

in Nigeria are adhering to the requirements of the NCCG 2011 on the disclosure of this risk item category during the period under review.

**Table 4.11**

*Capital Market Risk Disclosure*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	148	65.8%
No Disclosure	77	34.2%
<b>Total</b>	<b>225</b>	<b>100%</b>

Regarding disclosure of capital/market risk which involves information on interest rate, exchange rate, commodity, liquidity, and credit in the market environment where the listed firms operate, the result in Table 4.11 indicates a significant disclosure having a frequency of 148 (65.8%), and nondisclosure appearances of about 77 (34.2%). As such, it can be boldly argued that listed financial service firms in Nigeria are adhering to the requirements of the NCCG 2011 on this issue of capital/market risk disclosure.

**Table 4.12**

*Environmental Risk Disclosure*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	110	48.9%
No Disclosure	115	51.1%
<b>Total</b>	<b>225</b>	<b>100%</b>

The frequency result in Table 4.12 demonstrates that there is a frequency of 110 (48.9%) disclosure, and 115 (51.1%) nondisclosure of environmental risk information (that is, the disclosure of health and safety, erosion of brand name, and corporate social responsibility). This specifies that information about environmental risk is not fully disclosed but moderately disclosed across listed financial service companies in Nigeria

during the period under review. As a result, there is a moderate adherence to the requirements of the NCCG 2011 on the issue of environmental risk in the financial service industry in Nigeria.

**Table 4.13**

*Operational/other Risks Disclosure*

<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
Disclosure	104	46.2%
No Disclosure	121	53.8%
<b>Total</b>	<b>225</b>	<b>100%</b>

In consideration of operational risk and other risk disclosure (which encompasses customer satisfaction, product development, sourcing, product and service failure, stock obsolescence and shrinkage among others), the result in Table 4.13 indicates that there is no adequate disclosure of such item of risk category. This is because the nondisclosure cumulates a frequency of 121 (53.8%), whereas the disclosure status amassed 104 frequencies (46.2%). The result shows that there is no adequate disclosure of information on operational risk by listing financial service firms in Nigeria, hence, an indication of partial adherence to the requirements of the NCCG 2011 on operational risk.

In the quest to answer the first research question in this study on the extent of disclosure of risk management practice by the listed financial service firms in Nigeria, the frequency distribution of how categories of Risk Management Practice and Disclosure (RMPD) behaved were analyzed using SPSS version 20. For this reason, the categories (from Table 4.7 to 4.13) of RMPD are summed-up based on a panel data basis (that is for the cross-sections [each firm] and time period [2012-2016]) as earlier shown in Table

3.3 (chapter three). The risk management practice and disclosure (RMPD) categories have been explained already in the previous chapter (chapter three, Table 3.4), and which the degree of its ratings on disclosure intensity has been provided in Table 3.5 also in chapter three of this study. The scores for rating parameter on risk management practice and disclosure as provided in Table 3.5 are as thus: a score of '0' means 'no disclosure, 1 to 2 means 'weak disclosure', 3 to 4 is 'moderate disclosure', 5 to 6 is 'strong disclosure', and above 6 is 'very strong disclosure'. The result obtained for the risk management practice and disclosure intensity is presented in table 4.14 as in the following:

**Table 4.14**

<i>Risk Management Practice and Disclosure Intensity</i>		
<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
No disclosure	0	0.00%
Weak disclosure	0	0.00%
Moderate disclosure	49	21.78%
Strong disclosure	140	62.22%
Very strong disclosure	36	16.00%
<b>Total</b>	<b>225</b>	<b>100%</b>

The result from Table 4.14 shows that 'No disclosure' and 'Weak disclosure' have zero scores. Nonetheless, the result further shows that 'Moderate disclosure' has a frequency of 49 (21.78%), the 'Strong disclosure' has 140 frequencies (62.22%), and a frequency of 'Very strong disclosure' of 36 (16%). Therefore, it can be arguably stated that there is a high intensity of disclosure on risk management practices and procedures of listed financial service companies in Nigeria during the period under review. In addition, the result also portrays that listed financial service companies in Nigeria are significantly

adhering to the requirements of the NCCG 2011 on the disclosure of information on their risk management practices and procedures. Based on this result, it is expected that risk management practice and disclosure will have a positive effect on the performance of listed financial service firms in Nigeria.

Equally important, the intensity of information disclosure on risk management practices by listed financial service firms in Nigeria will help to boost the companies' market share since investors are interested in a company that is transparent in information disclosure. Hence, investors will be skeptic with less information disclosure because when financial statements are not transparent, they (investors) can never be indisputable on the factual risk and actual nitty-gritties of a company. Case in point, lack of transparency by a company may leads to the concealment of important information on the company's debt level which may obstruct investors in performance evaluation and in estimating the exposure of the company to bankruptcy. For example, high profile companies like Enron and WorldCom went into financial shenanigans due to lack of transparency by their corporate managers. Therefore, it is advisable that listed financial service firms in Nigeria should further intensify their extent of information disclosure, especially on their risk management practices, as it may in a long way, paves a path for a better performance.

#### **4.5 Correlation Analysis**

Correlation analysis is "used to describe the strength and direction of the linear relationship between two variables" (Pallant, 2005; p. 121). In this study, Pearson correlation analysis was carried out to determine the extent and direction of the

relationship between the study variables as provided in Table 4.15. The strength of the relationship among variables is usually ascertained by the correlation coefficient denoted by (r) of the variables.

In addition, Hair, Anderson, Tatham, and Black (2010) suggested that in determining correlation coefficient, a value of zero (0) means no relationship, whereas the correlation value of  $\pm 1$  indicates a perfect relationship. More specifically, the correlation (r) is seen as smaller where the  $r$  value falls between  $\pm 0.1$  and  $\pm 0.29$ . But where the correlation value ranges between  $\pm 0.3$  to  $\pm 0.49$ , the relationship is said to be medium, while a correlation value of  $\pm 0.50$  and above specifies a strong relationship (Cohen, 1988). However, a high correlation of 0.8 (Gujarati, 2009) or 0.9 (Hair *et al.*, 2014; Tabachnick & Fidell, 2007) between independent variables is an indication of multicollinearity which may distort the regression results. Hence, there is no issue of multicollinearity in this study since all the correlation coefficients are less than the threshold of 0.8 or 0.9 as presented in Table 4.15.

**Table 4.15***Results of Pearson Correlation Analysis of the Study Variables (N = 225)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16															
1 BSZ	1																														
2 BCOMP		-.2137***	1																												
3 BMT			.2221***	-.0551	1																										
4 CEOT				.0543	-.0056	-.0589	1																								
5 BEXP					.1627**	.2283***	-.0889	-.0012	1																						
6 RMCS						.6047***	-.1583**	.1899***	-.0051	.1745**	1																				
7 RMCC							.1099	.2132***	.0654	.0548	.2535***	.1933***	1																		
8 RMCM								.3593***	-.0203	.1918***	-.1043	.2381***	.3512***	.1360**	1																
9 RMPD									.1214*	.0059	.0798	.0722	.0948	.0682	.0332	.0775	1														
10 FSZ										.6892***	-.2788***	.2468***	.0346	-.1376**	.6098***	.0545	.3896***	.1368**	1												
11 LEV											.1633**	-.2096***	.1321**	-.1521**	-.1396**	.1508**	-.1934***	.0100	.0609	.2243***	1										
12 FAG												.-0553	.0217	-.0342	.1228*	.0655	.1346*	.1630**	-.0639	.0679	-.0560	-.0938	1								
13 ASTAN													.-4255***	-.0108	-.1311**	-.0973	-.3632***	-.4885***	-.2378***	-.3429***	-.0734	-.5433***	.2027***	-.01614**	1						
14 ROA														.1348**	.0168	-.1404**	.0908	.1503**	.0948	.1147*	.1333**	.0494	.1566**	-.4040***	-.0744	.-3372***	1				
15 ROE															.1592**	-.1154	-.0805	.0252	-.0239	.0468	-.0097	.0702	.0529	.2340***	.0853	-.1277	-.1297	.6163***	1		
16 MTB																-.0921	-.0209	-.0190	.0897	-.0301	-.0861	.0685	.0375	-.0987	-.1987***	-.2233***	.2794***	-.0671	-.0197	-.131**	1

**Notes:**

\*\*\* Correlation is significant at the 0.01 level.

\*\* Correlation is significant at the 0.05 level.

\* Correlation is significant at the 0.1 level.

Regarding return on assets (ROA), the correlation result from Table 4.15 displays that leverage (LEV) and asset tangibility (ASTAN) are significantly and negatively related to ROA at the 0.01 level, while board meeting (BMT) is at the 0.05 level. Meaning that higher leverage may leads to lower performance or loss. So also, a high concentration of tangible assets (ASTAN) may result to lower performance or loss to the firm. In the same vein, frequency of board meetings (BMT) does not improve the performance of listed financial service firms in Nigeria since it has significant negative relationship with ROA. On the other hand, board size (BSZ), board expertise (BEXP), risk management committee meeting (RMCM) and firm size (FSZ) are significantly and positively related with ROA at the 0.05 level. In line with the agency theory assertions, a larger number of board size (BSZ) ensures an effective and efficient monitoring of management which reduces the power of the CEO on corporate board of directors and therefore enhances firm performance. Moreover, board expertise (BEXP) improves firm performance as presumed by both agency and resource dependence theories since the directors with multiple directorships have vast experience on environment uncertainties and social ties that will help in reducing cost of obtaining relevant information and ultimately improves company's performance. Hence, this is consistent with the correlation result obtained in this study for board expertise (BEXP).

Relatively, the significant positive relationship between risk management committee meeting (RMCM) and ROA is consistent with the agency theory assertion. Meaning that higher meetings of risk management committee ensures better performance (in terms of ROA) to the company. Further, risk management committee composition has significant positive relationship with ROA at the 0.1 level. This indicates that a significant proportion of nonexecutive directors in the risk management committee may

improve the performance of listed financial service firms in Nigeria. Notwithstanding, the correlation result from Table 4.15 indicates that board composition (BCOMP), CEO tenure (CEOT), risk management committee size (RMCS), and risk management practice and disclosure (RMPD) are positively but not significantly related with ROA. In this sense, it can be said that board composition (BCOMP), CEO tenure (CEOT), risk management committee size (RMCS), and risk management practice and disclosure (RMPD) have a breakeven relationship, that is not contributing to the increase in performance and not affecting it unfavorably. However, the same result from Table 4.15 also depicts that firm age (FAG) has negative, but not a significant relationship with ROA.

Considering the second dependent variable which is the return on equity (ROE), the correlation result from Table 4.15 shows that it is positively related to firm size (FSZ) and board size (BSZ) at the 0.01 and 0.05 levels respectively. Meaning that size of a firm and board size may contribute to the improvement of performance in terms of ROE of listed financial service firms in Nigeria. Moreover, the correlation result illustrates that CEO tenure (CEOT), risk management committee size, (RMCS), risk management committee meeting (RMCM), risk management practice and disclosure (RMPD), and leverage (LEV), are positive but not significantly related with ROE. Indicating that they are neither leading to an increase in performance nor decreasing it (that is breakeven relationship) since the correlation is not significant. Whereas, board composition (BCOMP), board meeting (BMT), board expertise (BEXP), risk management committee composition (RMCC), firm age (FAG), and asset tangibility (ASTAN) have a negative, but not significant correlation with the ROE. Meaning that the explanatory

variables in this case are not contributing to the increase in performance (ROE) of listed financial service firms in Nigeria.

In measuring the relationship between the explanatory variables and market-to-book ratio (MTB), the correlation outcome from Table 4.15 shows that firm age (FAG), firm and leverage (LEV) are positively and significantly related to MTB at 0.01 level. This means that the age of a company in operation from incorporation and the amount of leverage in record may contribute in increasing performance (MTB). Whereas, firm size (FSZ) has a negative relationship with MTB at the same 0.01 significant level. On the other hand, CEO tenure (CEOT), risk management committee composition (RMCC), and risk management committee meeting (RMCM) are positive, but not significantly related with MTB (that is a breakeven relationship). While board size (BSZ), board composition (BCOMP), board meeting (BMT) board expertise (BEXP), risk management committee size (RMCS), risk management practice and disclosure (RMPD), and asset tangibility (ASTAN) have a negative, but not a significant association with MTB, but not significant.

Besides, the correlation matrix from Table 4.15 also shows that there is no presence of multicollinearity among the independent variables as well as the control variables, because none of them has a correlation coefficient of 0.7 (Pallant, 2005), 0.8 (Gujarati, 2009) or 0.9 (Hair *et al.*, 2014; Tabachnick & Fidell, 2007). However, a comprehensive explanation of the relationship between the study variables is also provided under the main regression result in the subsequent subsection.

## 4.6 Panel Data Analysis

As opined by Hair *et al.* (2014), regression analysis is considered as one of the most widely used and multipurpose statistical technique that is applicable in almost every facet of business decision making and is also the basis of econometric models. Equally, multiple regression is a complex extension of correlation which is used to discover the predictive power of a group of independent variables (usually continuous) on a continuous dependent variable (Pallant, 2005). Therefore, this study utilizes multiple regression in order to explore the relationship between the independent and dependent variables. As such, a panel data analysis was conducted because one of the merits of using panel data is due to several data options, the degree of freedom increased, and collinearity among the explanatory variables is reduced, thereby, improving the efficiency of results (Asteriou & Hall, 2007).

However, prior to the execution of multivariate regression analysis, the data were first examined to meet the assumptions of multivariate analysis. Although, missing value analysis and detection of outliers were examined before testing of regression assumptions. The basic assumptions required before running a regression analysis that was carried out in this study are normality, heteroscedasticity, linearity, multicollinearity, cross-sectional dependence, and autocorrelation.

### 4.6.1 Missing Data Analysis

Missing data arises when a respondent(s) to a questionnaire left a question(s) unattended, or where a data was not inputted by the researcher. Likewise, data may be

missing where a researcher flops to record the data completely and appropriately. Hair *et al.* (2014) stressed that missing data occur "where valid values on one or more variables are not available for analysis are a fact of life in multivariate analysis" (p. 40). The authors further strengthened that the rule of thumb for missing values is to replace them using mean where there are less than 5% missing values per item. For the purpose of analysing missing data in this study, SPSS version 20 was used. However, missing value analysis conducted in this study indicates that none of the indicators has 5% missing values, rather, it has 0%. Hence, missing values are not present in this study, as can be seen from Table 4.16 of the result of the univariate analysis of missing values.

**Table 4.16**

*Univariate Analysis of Missing Values*

Variables	N	Mean	Std. Dev.	Missing	
				Count	Percent (%)
ROA	225	0.252	0.215	0.00	0.00
ROE	225	0.136	0.121	0.00	0.00
MTB	225	0.126	0.107	0.00	0.00
BSZ	225	10.590	3.314	0.00	0.00
BCOMP	225	0.643	0.115	0.00	0.00
BMT	225	5.610	1.734	0.00	0.00
CEOT	225	3.670	1.822	0.00	0.00
BEXP	225	0.278	0.104	0.00	0.00
RMCS	225	5.590	1.714	0.00	0.00
RMCC	225	0.612	0.114	0.00	0.00
RMCM	225	3.730	1.135	0.00	0.00
RMPD	225	5.310	1.153	0.00	0.00
FSZ	225	24.585	2.188	0.00	0.00
LEV	225	0.618	0.404	0.00	0.00
FAG	225	34.400	16.082	0.00	0.00
ASTAN	225	0.101	0.104	0.00	0.00

**Note:** ROA=Return on Assets; ROE=Return on Equity; MTB=Market-to-Book ratio; BSZ=Board Size; BCOMP=Board Composition; BMT=Board Meeting; CEOT=Chief Executive Officer Tenure; BEXP=Board Expertise; RMCS=Risk Management Committee Size; RMCC=Risk Management Committee Composition; RMCM=Risk Management Committee Meeting; RMPD=Risk Management Practice and Disclosure; FSZ=Firm Size; LEV=Leverage; FAG=Firm Age; and ASTAN=Asset Tangibility.

#### 4.6.2 Outliers Detection

An outlier is considered as a case having an extreme value of a particular variable (univariate outlier), an odd mixture of scores on two or more variables (multivariate outlier) which alters statistics (Tabachnick & Fidell, 2007). The authors further buttressed that “outliers are found in both univariate and multivariate situations, among both IVs and DVs, and in both data and results of analyses. They lead to both Type I and Type II errors, frequently with no clue as to which effect they have in a particular analysis” (p. 72).

According to Hair *et al.* (2010), inspecting outliers is a momentous step in multivariate analysis because skipping initial investigation of outliers can corrupt statistical tests if it occurs to be a problematic outlier. Specifically, it alters statistics and probably leads to results that do not generalize to certain samples except one with the same type of outliers (Tabachnick & Fidell, 2007 & 2013). In the same vein, problematic outliers are not representative of the population of a study, rather, they counter the objectives of analysis, and can significantly affect statistical tests (Hair *et al.*, 2014).

Dealing with multivariate outliers (a group variable analysis and selecting those cases falling at the outer range [higher or lower]) will take care of univariate outliers (a single variable analysis and select as outliers those scores having extreme cases [higher or lower]), but treating univariate outliers may not necessarily take care of multivariate outliers' (Hair *et al.*, 2014). Nonetheless, multivariate outliers can be detected by the Mahalanobis  $D^2$  measure (Field, 2009; Hair *et al.*, 2014; Tabachnick & Fidell, 2007).

To this effect, the Mahalanobis D<sub>2</sub> measure was used to detect and deal with multivariate outliers in this study.

Hereafter, the Mahalanobis D<sup>2</sup> measure was calculated using linear regression methods with SPSS v20, alongside the computation of Chi-square ( $\chi^2$ ) value. Given that 225 items were used, 276.16 represents the degree of freedom in the  $\chi^2$  Table with  $p<.001$ , so the criterion is 276.16 (Tabachnick & Fidell, 2007 & 2013). This means that any case with a Mahalanobis D<sup>2</sup> value of 276.16 and beyond is a multivariate outlier and therefore be removed. Hence, no case with a value of 276.16, meaning that outliers are not present in this study. As such, further analysis proceeded. However, the result is presented in Table 4.17.

Another way of determining multivariate outlier is '**bacon**' command in Stata software. BACON, which is an acronym for blocked computationally efficient outlier nominators is a more effective and efficient way of detecting multivariate outliers' (Weber, 2010). This (**bacon**) algorithm was originated by Billor, Hadi, and Velleman (2000) which is a modified version and procedure executed in **hadimvo** that Hadi (1992, 1994) initially proposed. Even though both **bacon** and **hadimvo**, when used in Stata, give out a similar result of outliers, yet, **bacon** becomes faster and easier in detecting multivariate outliers, most especially with a large data set having larger observations (Billor *et al.*, 2000; Weber, 2010).

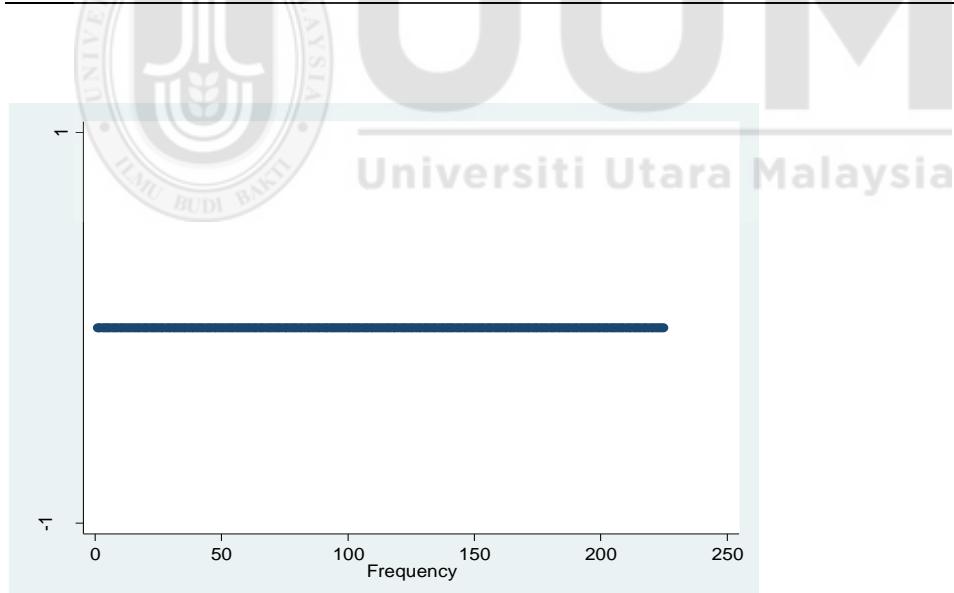
Therefore, for the purpose of detecting multivariate outliers in this study, **bacon** was executed in Stata, and the output shows that outliers are not present in regards to the observations in this study. As regards, the result for **bacon** alongside Mahalanobis

distance ( $D^2$ ) is presented in Table 4.17. In addition to the multivariate outliers' result presented in Table 4.17, Figures (4.2 and 4.3) are annexed showing bacon outlier frequency graph and data error graph (relating to Mahalanobis  $D^2$ ). Both the graphs show that multivariate outliers are not present in this study.

**Table 4.17**

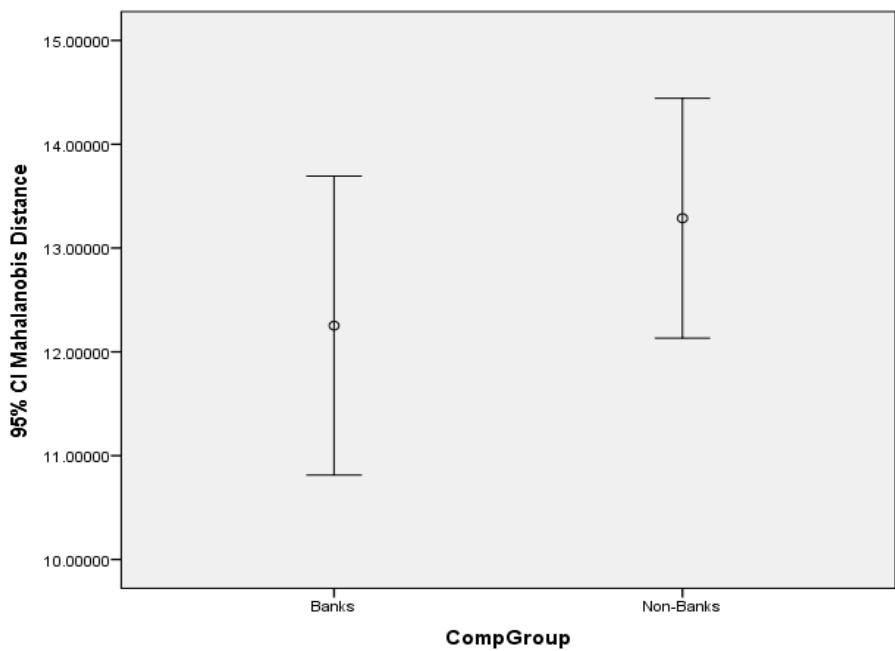
*Multivariate Outliers Detection (bacon and Mahalanobis  $D^2$ )*

	BACON (p=0.15)	Mahalanobis $D^2$
Observations	225	225
Outliers	0	0
Non-outliers remaining	225	225
Chi- $X^2$	----	0.000
df (224)	Critical value	45.703
	Table Value	276.16



**Figure 4.2**

*BACON Outlier Frequency Graph*



**Figure 4.3**

*Mahalanobis D<sup>2</sup> Data Error Graph*

#### 4.6.3 Diagnostic Tests for Multiple Regression Assumptions

Prior to execution of multivariate regression analysis, it is of paramount importance to check whether the regression assumptions are fulfilled. The assumptions include; normality, linearity, multicollinearity, the absence of heteroscedasticity, and autocorrelation (Gujarati, 2003; Hair *et al.*, 2014). After regression model have been formulated, the most important step is to test individual variables for the assumptions underlying regression analysis. If all assumptions are satisfied, then the model is said to be estimated (Hair *et al.*, 2014). The authors further argued that "once results are obtained, diagnostic analyses are performed to ensure that the overall model meets the regression assumption and that no observation has undue influence on the results" (p. 164). Therefore, all the aforementioned regression assumptions were tested in this study and provided in the subsequent subtitles.

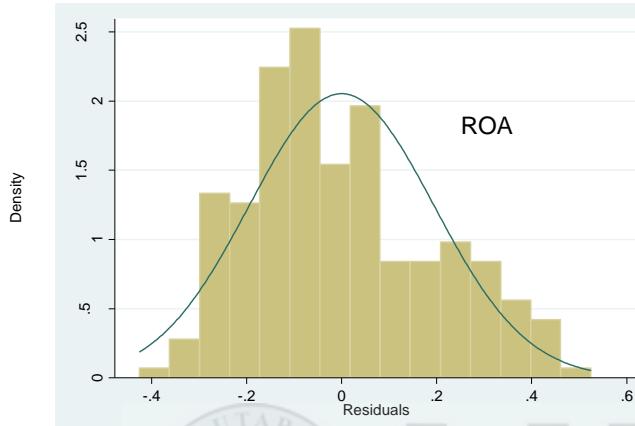
#### 4.6.3.1 Normality Test

In almost every multivariate analysis, screening of continuous variables for normality is a very important phase, especially when one's objective is for inferencing. Even though achieving normality of study variables is not a constant requirement for analysis, but the result is considerably better if the variables are found to be normally distributed. However, the result of the analysis will be degraded if the variables deviate from a normal distribution (Tabachnick & Fidell, 2007). Moreover, the normality of variables is usually ascertained using mathematical (statistical) or graphical approach. The most usable mechanisms of normality are skewness and kurtosis. In essence, skewness deals with the asymmetry (centre or mean oriented) of a given distribution while kurtosis looks at the peakedness (high or flatness) of the distribution (Tabachnick & Fidell, 2007).

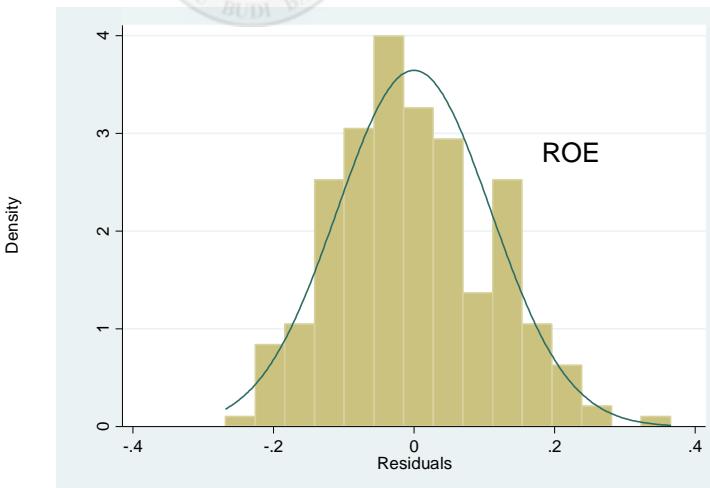
For the purpose of this study, the statistical approach (skewness and kurtosis) was employed to test for normality of the data distribution as suggested by Kline (2008), Hair *et al.* (2010), Tabachnick and Fidell (2007), and West, Finch, and Curran (1995). According to West *et al.* (1995), skewness and kurtosis values should be less than 2 and less than 7 respectively. While Kline (1998 & 2011), opines that the total values of skewness greater than 3 and a kurtosis greater than 10 are deemed to be indicators of problems.

Therefore, all the variables in this study are found to be normally distributed because the value of skewness ranges from 0.11 to 1.48, while kurtosis value ranges from 2.54 to 5.71 as shown in Table 4.3. Based on the opinion of Kline (1998 and 2011), the data

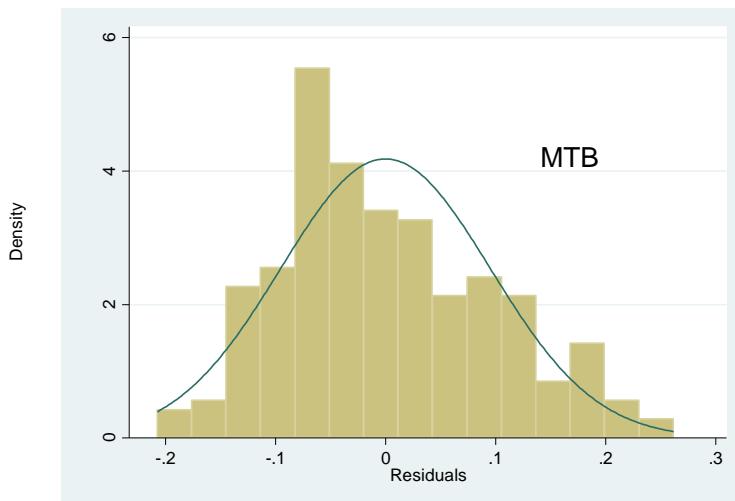
in this study does not deviate from normally distributed as they are within the acceptance criterion of lower than 3 and 10 for skewness and kurtosis respectively. Additionally, normality can also be determined using residual plots of the dependent variables. Thus, the residual plots below show that the variables are not different from normal.



**Figure 4.4**  
*Residual Plot for Return on Asset (ROA)*



**Figure 4.5**  
*Residual Plot for Return on Equity (ROE)*



**Figure 4.6**

*Residual Plot for Market-to-Book ratio (MTB)*

From the residual plots of the three models (ROA, ROE, and MTB) as Figure 4.4, 4.5, and 4.6, it can be said that the data is normally distributed, even though the plots for ROA and MTB have dispersed a little, but yet, not different from a normal distribution.

#### 4.6.3.2 Multicollinearity Check

Multicollinearity arises where a single explanatory (independent) variable is highly correlated with a given set of other explanatory variables (Hair *et al.*, 2014). According to Pallant (2005) and Tabachnick and Fidell (2007), multicollinearity is said to be present when independent variables are highly correlated, for say, the coefficient ( $r$ ) is 0.9 and above. But, Pallant (2010) advocates that the benchmark for multicollinearity among independent variables is a correlation value of 0.7 and higher. Based on the correlation matrix in Table 4.15, multicollinearity does not exist between the independent variables in this study because none of the correlation values amongst the independent variables is higher than 0.7 or 0.9.

However, the most significant and dependable way of assessing multicollinearity is by examination of Variance Inflation Factor (VIF) and Tolerance (Hair *et al.*, 2014). In addition, tolerance ( $TOL_i$ ) is the direct measure of multicollinearity because it is the amount of variability of the selected independent variable not explained by the other independent variables. While VIF is the inverse of Tolerance ( $VIF_i = 1/TOL_i$ ). The thresholds for tolerance and VIF are values of more than 0.1 and less than 10 respectively (Hair *et al.*, 2014; Pallant, 2005).

In this study, the values of tolerance and the variance inflation factor of the variables are presented in Table 4.18, and the outcome shows that multicollinearity does not exist, because it is apparent that tolerance is between 0.14 and 0.60, reasonably greater than the threshold of 0.1 (Hair *et al.*, 2014; Pallant, 2005). In the case of VIF, it ranges between 1.67 and 7.26, considerably less than the threshold of 10 (Hair *et al.*, 2014; Pallant, 2005). Therefore, this indicates that multicollinearity does not exist in this study.

**Table 4.18**

*Multicollinearity Test Based on VIF and Tolerance Values*

Variables	VIF	1/VIF
FSZ	3.77	0.27
BSZ	2.97	0.34
ASTAN	2.10	0.48
RMCS	2.01	0.50
LEV	1.33	0.75
BEXP	1.33	0.75
RMCM	1.31	0.76
BCOMP	1.24	0.80
RMCC	1.19	0.84
FAG	1.14	0.88
BMT	1.14	0.88
CEOT	1.07	0.93
RMPD	1.04	0.96
Mean VIF	1.67	

#### 4.6.3.3 Checking for Linearity

Linearity shows the mathematical correlation or function between variables in the form of a straight line. Hair *et al.* (2010) state that “an implicit assumption of all multivariate techniques based on a correlation measure of association, including multiple regression, logistic regression, factor analysis, and structural equation modelling, is linearity (p. 76). Furthermore, Pallant (2005) discourses that for linearity to be present, there should be a straight-line relationship between the residuals and predicted dependent variable scores. Although, “failure of linearity of residuals in regression does not invalidate an analysis so much as weaken it” (Tabachnick & Fidell, 2007, p. 127).

In determining linearity as an assumption of multiple regression, some scholars have suggested the use of residual plots (e.g., Pallant, 2005; Tabachnick & Fidell, 2007), where others have recommended the use of a more scientific method by comparing the standard deviation of the dependent variables’ scores and that of their respective residuals (Hair *et al.*, 2010). Here, linearity is said to be achieved if the standard deviations of dependent variables are greater than that of residuals. In this study, linearity is confirmed because the standard deviations of the performance variables (DVs) are considerably higher in comparison to their respective residuals, as presented in Table 4.19.

**Table 4.19***The Standard Deviation of Dependent Variables and Their Residuals*

Variables	Std. Deviation	Residuals
ROA	0.2148	0.1944
ROE	0.1208	0.1093
MTB	0.1074	0.0954

#### 4.6.3.4 Heteroskedasticity Test

The multivariate analysis assumed that the residuals in a regression model are homoscedastic, that is, the variance of error terms are constant or are equally spread over a range of independent variables (Hair *et al.*, 2014). Heteroscedasticity, the failure of homoscedasticity, occurs when the error terms have a modulating or increasing variance, that may be triggered by nonnormality of a particular variable, transformation error, or greater error of measurement of some independent variables (Hair *et al.*, 2014; Tabachnick & Fidell, 2007). However, “heteroscedasticity is not fatal to the analysis of ungrouped data. The linear relationship between variables is captured by the analysis, but there is even more predictable if the heteroscedasticity is accounted for. If it is not, the analysis is weakened, but not invalidated” (Tabachnick & Fidell, 2007, p. 87).

In order to detect heteroscedasticity, a graphical approach can be used, where the residuals of the model are always plotted in comparison to the predicted values of dependent variables and every predictor variable to ascertain whether or not the error terms of the model have constant variance. Contrastingly, heteroscedasticity can be detected using the Breusch-Pagan/Cook-Weisberg test which gives the chi-square value and its probability at 5% significance level.

For the purpose of this study, the Breusch-Pagan/Cook-Weisberg test was employed to detect the presence or otherwise of heteroscedasticity. Consequently, the result from Table 4.20 indicates that the model for ROE fails to reject the null hypothesis, hence, no presence of heteroscedasticity because the p-value is 0.6138 (61.38%), which is above the threshold of 0.05 (5%). In contrast, for ROA and MTB, their p-values are significant at the 0.05 level, and thus, the two models rejected the null hypotheses as there is an issue of heteroscedasticity. Moreover, the outcome signposts that the variance are widely spread which needs to be corrected.

**Table 4.20**

*Breusch-Pagan/Cook-Weisberg Test*

DVs	Chi2 (1)	Prob > Chi2	Null (Ho)
ROA	9.21	0.0024	Rejected
ROE	0.25	0.6138	Accepted
MTB	11.27	0.0008	Rejected

Note: Ho (null): Homoscedasticity

In handling the problem of heteroscedasticity that appeared in return on asset (ROA) and market-to-book ratio (MTB) models, the Panel Corrected Standard Errors (PCSEs) was employed as suggested and used by previous scholars (e.g., Bailey & Katz, 2011; Beck & Katz, 1995; Reed & Ye, 2011).

#### 4.6.3.5 Checking for Cross-sectional Dependence

Cross-sectional dependence, also known as contemporaneous correlation or ‘between group’ dependence, is the relationship of the overlooked factors throughout the units. Pesaran (2004) states that it is typically assumed that disturbances in panel data models

are cross sectionally independent, which is particularly true with large cross section dimension ( $N$ ). In a coherent manner, Sarafidis and Wansbeek (2012) stressed that "one major issue that inherently arises in every panel data study with potential implications for parameter estimation and inference is the possibility that the individual units are interdependent" (p. 2). Additionally, the impact of cross-sectional dependence which may lead to bias in test results depends on factors like, the extent of the correlations throughout the cross sections, and the nature of cross sectional dependence itself (Sarafidis & Wansbeek, 2012).

In the quest to check for contemporaneous correlation in this study, the Pesaran's CD (Cross-section Dependence) test was employed using STATA (version 14) with syntax; *xtcsd, pesaran abs*. In essence, the test was executed on the three regression models in this study, involving; ROA, ROE and MTB, and the results obtained which are presented in Table 4.21 show that cross-sectional dependence is not an issue since the probability values for all the three models (ROA, ROE, and MTB) are greater than the threshold of 0. 05.

**Table 4.21**

*Pesaran's CD (Cross-section Dependence) Test*

Variables	Pesaran's test of Cross-sectional Independence	Av. Absolute value of off-diagonal element
ROA	-0.227, Pr = 0.8202	0.549
ROE	-0.523, Pr = 0.6013	0.486
MTB	-0.207, Pr = 0.8364	0.556

#### 4.6.3.6 Test for Autocorrelation

Autocorrelation, also termed as serial correlation, occurs when a relationship exists between a particular variable and itself over time periods, or when the error terms of cross-sections observations are correlated over time intervals. Born and Breitung (2016) argued that “the classical error component panel data model assumes serially uncorrelated disturbances, which might be too restrictive” (p. 1). For the reason that unabsorbed shocks to economic relationships, investment or consumption will often have an impact for more than one period (Baltagi, 2008). Hence, the test for serial correlation in the disturbances becomes necessary as overlooking this matter would result in inefficient estimates and biased standard errors (Born & Breitung, 2016).

In order to test for serial correlation (autocorrelation) in panel data model, various techniques were proposed in the literature. For instance, the Durbin-Watson statistics for fixed panel model generalized by Bhargava, Franzini, and Narendranathan (1982), Lagrange Multiplier (LM) statistics for first order serial correlation derived from Baltagi and Li (1991, 1995). Moreover, Wooldridge (2002) developed a test for serial correlation but has been elaborated by Drucker (2003) who utilizes the Wooldridge test in determining autocorrelation in the idiosyncratic error term in the panel-data model.

For the purpose of this study, the Wooldridge test was employed in checking for serial correlation using STATA (version) 14 with the help of the command: *xtserial*. Based on the results displayed in Table 4.22, all the three regression models suffered from the serial correlation problem because all the p-values for the three dependent variables (ROA, ROE, and MTB) are significant ( $p < 0.05$ ). As a consequence, all the three nulls

( $H_0$ ) hypotheses which state that: 'No first order autocorrelation', was rejected. Therefore, the problem of serial correlation inherited in this study for all the three models (ROA, ROE, and MTB) was handled using the Panel Corrected Standard Errors (PCSEs) (see; Bailey & Katz, 2011; Beck & Katz, 1995; Hoechle, 2007; Reed & Ye, 2009).

**Table 4.22**

*Wooldridge Test*

Variables	F (1, 44)	Prob > F	Ho (null) hypothesis
ROA	21.469	0.000	Rejected
ROE	6.153	0.017	Rejected
MTB	21.116	0.000	Rejected

Notes:  $H_0$ : No first order autocorrelation.

#### 4.7 Results of Lagrange Multiplier (LM) Test

The Breusch-Pagan Lagrange Multiplier (LM) test is usually conducted in order to make a choice between the Random Effects (RE) regression and the pooled OLS regression. According to Baltagi (2008), the random effect model is the most fitting specification where ' $N$ ' individuals are drawn randomly from a large population. Likewise, the individual effect is characterized as random and inference relating to the population from which a sample was drawn randomly. Accordingly, "the population consists not of an infinity of individuals, in general, but of an infinity of decisions, that each individual might make" (Baltagi, 2008, p. 15). This assertion is in line with a random effects specification. In essence, OLS estimates remain consistent and unbiased under the RE model, but no longer efficient.

However, the pooled OLS estimator ignores the panel structure of data (Schmidheiny & Basel, 2013). Pooled OLS usually treat all observations for all time periods as a single sample, and estimates  $\alpha$  and  $\beta$  consistently. In essence, OLS estimates remain consistent (that is, it estimated  $\mu$  and  $\beta$  consistently) and unbiased under the RE model, but no longer efficient. To this effect, the Breusch-Pagan LM test is appropriate. As a rule of thumb, if the LM test produces an insignificant p-value ( $p > 0.05$ ), then the null ( $H_0$ ) hypothesis will not be rejected, hence, random effects regression is not suitable. But where the LM test generates a significant p-value ( $p < 0.05$ ), then the null hypothesis will be rejected, indicating that the random effect model is more appropriate than the pooled OLS.

Based on the Breusch-Pagan LM test executed in this study using STATA (version) 14, the result obtained from the three models in the study shows that the random effects model is more appropriate against the pooled OLS because all the p-values are less than 0.05. For this reason, the RE regression results are preferable for inferences. However, the results of the Breusch-Pagan LM test are delineated in Table 4.23 as thus:

**Table 4.23**

*Breusch-Pagan LM Test*

Variables	Test: Var(u)	Chibar2 (01)	Prob > Chibar2	Null
				hypothesis
ROA	0	257.55	0.000	Rejected
ROE	0	189.44	0.000	Rejected
MTB	0	255.11	0.000	Rejected

#### 4.8 Results of F-Test

In order to compare and make a choice between the Fixed Effects (FE) model and pooled OLS, the result of F-test is always considered. Breusch and Pagan (1980) claimed that FE is examined by the use of F-test, whereas, random effects are tested using Lagrange Multiplier (LM) test. Comparatively, the FE model assumes the existence of individual heterogeneity, and it is normally related with one or more regressors. Therefore, if one is concentrating on a specific  $N$  firm, and the behaviour is limited to the behaviour of the said firm, then, the FE model is the suitable specification (Baltagi, 2008). However, the pooled OLS assumes the existence of individual homogeneity (that is, no individual heterogeneity) among the observations. Thus, making a choice between the two models (FE and OLS) depends on the result of F-test.

More importantly, where the result of F-test has a significant p-value ( $p < 0.05$ ), the null hypothesis of no individual effect will be rejected, and the FE model will be favoured over the pooled OLS, and vice versa (Breusch & Pagan, 1980). Therefore, based on the result of F-test displayed in Table 4.24, significant p-values ( $p < 0.05$ ) were obtained from all the three models in this study, hence, the fixed effect model is preferable for further analysis.

**Table 4.24**

*F-Test*

Variables	F-stat.	P >F	Null (H <sub>0</sub> ) hypothesis
ROA	24.79	0.000	Rejected
ROE	13.63	0.000	Rejected
MTB	24.95	0.000	Rejected

#### 4.9 Hausman's Specification Test

The significant consideration in selecting amid a fixed effect (FE) and a random effect (RE) models is whether  $c_i$  (unobserved effect) and  $\mathbf{x}_{it}$  (explanatory variables) are correlated, hence, it is vital to have an approach to examining this assumption (Wooldridge, 2002). For this reason, Hausman (1978) developed a test based on the differences between the FE and RE estimates. Thus, the Hausman specification test is usually utilized when comparing the FE and RE models, to ascertain whether or not, the explanatory variables and the error terms are correlated (Baltagi, 2008).

Additionally, Wooldridge (2002) stresses that "since FE is consistent when  $c_i$  and  $\mathbf{x}_{it}$  are correlated, but RE is inconsistent, a statistically significant difference is interpreted as evidence against the random effects assumption" (p. 288). Bearing in mind that the FE model assumes the existence of a relationship between error term and explanatory variables, while the RE model does not, leading to the following hypothesis:

$H_0$ : Individual effects are uncorrelated with other regressors

$H_1$ : Individual effects are correlated with other regressors

In this regard, the null ( $H_0$ ) hypothesis for RE model, which means that its estimated variance component is not greater than zero (0), assumes the use of RE, and the alternative hypothesis which is the opposite of the null, adopt the use of the FE model. Specifically, "applied researchers have interpreted a rejection as an adoption of the fixed effects model and nonrejection as an adoption of the random effects model" (Baltagi, 2008, p. 19). In this case, if a significant p-value ( $p < 0.05$ ) is obtained, the null

hypothesis is rejected, and the FE model is selected. In this study, three different Hausman specification tests for ROA, ROE, and MTB were conducted. The results of Hausman tests for the three models as shown in Table 4.25 exhibited significant p-values, and thus, the null hypotheses were rejected. Therefore, this study preferred the fixed effect model over the random effect model for inferences. The result of the Hausman test is presented in Table 4.25 as in this way:

**Table 4.25**

*Hausman Test*

Variables	Chi2 (13)	Prob >Chi2	Hypothesis
ROA	58.22	0.000	Rejected
ROE	15.56	0.000	Rejected
MTB	31.37	0.003	Rejected

#### 4.10 Model Specification Test

The model specification in multivariate analysis is usually conducted to determine whether or not, the regression model is linear and functionally formulated. For the purpose of model specification test in this study, link test was performed using STATA (version) 14 for each of the three models for ROA, ROE, and MTB. The command '*linktest*' was utilized after regressing each of the three models in this study. However, the link test utilized here is based on the idea developed by Tukey (1949) which was described further in the work of Pregibon (1980). Specifically, linktest is a test of the specification of the dependent variable. It is regarded as a test which is conditional on the specification, the independent variables are not correctly specified.

Furthermore, the link test is grounded on the premise that if a regression or regression-like equation is properly specified, one is deemed to find no additional independent variables (IVs) that are significant except by chance. In regression, there is a particular specification error known as the “link error”, which translates that transformation or “link” function of the dependent variable is required to appropriately relate to the IVs. (Pregibon, 1980). Here, the principle of link test is to add an independent variable to the stated equation that is exclusively likely to be significant if there is a link error. Based on the idea of Tukey (1949) as suggested by Predigon (1980), the significance of link test is based on `_hatsq` that is generated by the command; *linktest*.

Therefore, based on the results of link tests for model specification presented in Table 4.26, the null hypotheses which assume that the models are correctly specified were not rejected because all the p-values of `_hatsq` for the three models are not significant ( $p > 0.05$ ), hence, the regression models are said to be correctly specified.

**Table 4.26**

*Linktest for Model Specification*

<b>ROA</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>t</b>	<b>P&gt; t </b>	<b> 95% Conf.</b>	<b>Interval]</b>
<code>_hat</code>	0.2384	0.4513	0.53	0.598	-0.6510	1.1278
<code>_hatsq</code>	1.4049	0.7976	1.76	0.080	-.1670	2.9768
<code>_cons</code>	0.0891	0.0614	1.45	0.149	-0.0320	0.2103
<b>ROE</b>						
<code>_hat</code>	0.8378	0.1882	4.45	0.000	0.4670	1.2086
<code>_hatsq</code>	0.7911	0.7384	1.07	0.285	-0.6641	2.2462
<code>_cons</code>	0.0044	0.0172	0.25	0.800	-0.0296	0.0383
<b>MTB</b>						
<code>_hat</code>	0.2588	0.4477	0.58	0.564	-0.6235	1.1411
<code>_hatsq</code>	2.7550	1.5940	1.73	0.085	-0.3863	5.8961
<code>_cons</code>	0.0430	0.0303	1.42	0.158	-0.0168	0.1027

Moreover, in addition to the link test for model specification conducted in this study, the Ramsey Regression Equation Specific Error Test (RESET) was also conducted to further check for any omission of variables in the model. The essence of the RESET test is to check for specification errors (i.e., omitted variables) in the regression model, and whether the functional form of the model is incorrectly specified (Ramsey, 1969). The Ramsey's RESET test "is based on the notion that if the functional form of the model is incorrect, then the correct specification might be approximated by the inclusion of the powers of the variables in the original model. The original set of independent variables is augmented by the powers of these variables. If the coefficients associated with that added variables are statistically significant, misspecification from sources such as an incorrect functional form or the exclusion of relevant variables is suggested" (Long & Trivedi, 1992, p. 163).

Likewise, Ramsey's RESET test is developed to notice if there are any ignored nonlinearities in the model. At this point, the RESET test was performed in this study using STATA version 14 by means of the command *ovtest*. The result of the Ramsey RESET test is presented in Table 4.27, and the result shows that none of the three models in this study is statistically significant at the 0.05 level ( $p > 0.05$ ). As a result, the null hypothesis cannot be rejected since there are no evidence of omitted variables in the regression models, hence, the models are said to be correctly specified. The Ramsey's RESET result of this study is presented in Table 4.27 as thus:

**Table 4.27***Ramsey RESET Test*

Variables	F-Test Statistics	Prob > F
ROA	1.83	0.143
ROE	1.73	0.162
MTB	2.09	0.103

#### 4.11 Results of Pooled OLS, Fixed Effect, and Random Effect Models

Albeit, the main regression result utilized in this study is a Panel Corrected Standard Errors (PCSEs) since the data in this study suffers from heteroscedasticity (for ROA and MTB models) and serial correlation problems (for ROA, ROE, and MTB models), yet, the study presents the regression results from Pooled Ordinary Least Square (OLS), Fixed Effect (FE) model, and Random Effect (RE) model. The reason is to examine how the variables have behave in each of the three models (ROA, ROE, and MTB) under the pooled OLS model, FE model, and RE model.

Pooled OLS usually treat all observations for all time periods as a single sample, and estimates  $\alpha$  and  $\beta$  consistently, and it estimator ignores the panel structure of data (Schmidheiny & Basel, 2013). While the RE model assumes that individual effect is characterized as random and inference relating to the population from which a sample was drawn randomly (Baltagi, 2008). Moreover, Baltagi added that the random effect model is the most fitting specification where  $N$  individuals are drawn randomly from a large population. However, FE model assumes the existence of individual heterogeneity, and it is normally related with one or more regressors. Thus, if one is concentrating on a specific  $N$  firm, and the behaviour is limited to the behaviour of the said firm, then,

the FE model is preferable (Baltagi, 2008). Therefore, the results for ROA, ROE, and MTB models under Pooled OLS, FE model, and RE model are presented in Table 4.28 as thus:



**Table 4.28***Pooled OLS, Fixed-Effects and Random Effects Panel Regressions for ROA, ROE, and MTB*

Variables	Pooled OLS			Fixed-Effects Model			Random Effects Model		
	ROA	ROE	MTB	ROA	ROE	MTB	ROA	ROE	MTB
Constant	1.080 (4.050)***	0.578 (3.990)***	0.567 (4.190)***	0.274 (0.500)	0.331 (0.870)	0.171 (0.640)	0.628 (1.880)*	0.397 (2.040)**	0.338 (2.02)**
<b>Independent</b>									
BSZ	0.141 (1.860)*	0.075 (1.820)*	0.070 (1.850)*	0.058 (0.910)	0.060 (1.370)	0.030 (0.920)	0.088 (1.440)	0.076 (1.870)*	0.045 (1.470)
BCOMP	-0.233 (-1.830)*	-0.136 (-1.960)*	-0.118 (-1.860)*	-0.153 (-1.740)*	-0.077 (-1.260)	-0.075 (-1.700)*	-0.188 (-2.170)**	-0.098 (-1.670)*	-0.092 (-2.130)**
BMT	0.023 (0.480)	-0.224 (-0.850)	0.014 (0.590)	0.013 (0.430)	-0.010 (-0.480)	0.006 (0.410)	0.012 (0.410)	-0.010 (-0.480)	0.006 (0.380)
CEOT	0.021 (0.920)	0.010 (0.810)	0.003 (0.680)	0.025 (1.860)*	0.004 (0.410)	0.006 (2.280)**	0.018 (1.390)	0.002 (0.280)	0.003 (1.380)
BEXP	-0.168 (-1.160)	-0.095 (-1.200)	-0.087 (-1.190)	-0.086 (-0.730)	-0.152 (-1.850)*	-0.045 (-0.770)	-0.044 (-0.390)	-0.098 (-1.320)	-0.025 (-0.440)
RMCS	-0.014 (-1.260)	-0.007 (-1.210)	-0.007 (-1.320)	0.004 (0.530)	-0.005 (-0.910)	0.002 (0.650)	-0.002 (-0.250)	-0.007 (-1.380)	-0.001 (-0.260)
RMCC	0.017 (0.140)	0.020 (0.280)	0.012 (0.190)	0.087 (1.120)	0.108 (2.000)**	0.042 (1.100)	0.127 (1.670)*	0.127 (2.460)**	0.064 (1.680)*
RMCM	0.278 (2.090)**	0.015 (2.140)**	0.044 (2.240)**	0.005 (0.590)	0.011 (1.940)*	0.005 (0.420)	0.004 (0.460)	0.011 (1.930)*	0.006 (0.520)
RMPD	-0.017 (-1.430)	-0.005 (-0.830)	-0.046 (-1.620)	-0.008 (-1.240)	-0.000 (-0.050)	-0.017 (-1.060)	-0.015 (-)	-0.003 (-0.690)	-0.035 (-2.610)***
<b>Control</b>							2.670)***		
FSZ	-0.041	-0.177	-0.021	0.005	-0.009	0.003	-0.027	-0.017	-0.014

Table 4.28 (Continued).....

	(-3.550)***	(-2.790)***	(-3.551)***	(0.210)	(-0.590)	(0.280)	(-2.000)**	(-2.160)**	(-2.050)**
LEV	-0.060 (-1.590)	-0.085 (-1.530)	-0.029 4.180)***	0.200 (4.840)***	0.072 (2.520)**	0.103 (4.980)***	0.134 (3.530)***	0.014 (0.580)	0.069 (3.620)***
FAG	0.003 (4.000)***	0.001 (2.560)***	0.002 (3.990)***	-0.011 (-1.540)	-0.004 (-0.760)	-0.007 (-1.950)*	0.003 (1.610)	0.001 (1.290)	0.001 (1.510)
ASTAN	-0.370 (4.050)***	-0.310 (-)	-0.185 (-2.020)**	0.129 (0.560)	-0.020 (-0.130)	0.075 (0.650)	-0.053 (-0.270)	-0.200 (-1.630)	-0.028 (-0.280)
			3.110)***						
N	225	225	225	225	225	225	225	225	225
Wald chi2(13)	----	----	----	----	----	----	38.76***	24.22**	38.06***
R <sup>2</sup>	0.210	0.264	0.219	0.895	0.840	0.896	0.041	0.133	0.039
Adjusted R <sup>2</sup>	0.161	0.219	0.163	0.859	0.785	0.860	----	----	----
F-Statistics	4.32***	5.83***	4.36***	3.81***	1.92**	3.94***	----	----	----

Notes: \*\*\*, \*\*, and \* represent significant at 1%, 5%, and 10% levels respectively; t-statistics are in parentheses ( ).

The regression results for the three models in this study (ROA, ROE, and MTB) under the Pooled OLS, FE model and RE model are presented in Table 4.28. Under the Pooled OLS model, the first model which ROA has an  $R^2$  of 0.21 (21%) and an adjusted  $R^2$  of 0.161 (16.1%). The  $R^2$  value of 0.21 indicates that all the explanatory variables in the model explained 21% of variations in the dependent variable (ROA), while the adjusted  $R^2$  of 0.161 portrays that the independent variables that really affects the dependent variable accounted for 16.1% of the variation in ROA. Moreover, the model is significant ( $F = 4.32, p < 0.01$ ), indicating a goodness of fit and validity of the model.

Table 4.28 also shows that for model one (ROA) under pooled OLS, the variable with the largest beta coefficient (-0.37) is asset tangibility (ASTAN), and was also found to be statistically significant at the 0.01 level ( $p < 0.01$ ). This signifies that *ASTAN* made a strongest unique contribution in explaining the performance variable represented by ROA. The beta coefficient for risk management committee meeting (RMCM) is (0.278) and  $p < 0.05$ , which is a bit lower than that of *ASTAN*. Likewise, other variables that made a statistically significant contribution to ROA are: board composition (BCOMP) ( $\beta = -0.233, p < 0.1$ ), board size (BSZ) ( $\beta = 0.141, p < 0.1$ ), firm size (FSZ) ( $\beta = -0.041, p < 0.01$ ), and firm age (FAG) ( $\beta = 0.003, p < 0.01$ ).

Whereas, board meeting (BMT) ( $\beta = 0.023, p > 0.1$ ), CEO tenure (CEOT) ( $\beta = 0.021, p > 0.1$ ), board expertise (BEXP) ( $\beta = -0.168, p > 0.1$ ), risk management committee size (RMCS) ( $\beta = -0.014, p > 0.1$ ), risk management committee composition (RMCC) ( $\beta = 0.017, p > 0.1$ ), risk management practise and disclosure (RMPD) ( $\beta = -0.017, p > 0.1$ ), and leverage (LEV) ( $\beta = -0.060, p > 0.1$ ) failed to make a statistical significant

contribution to firm performance, as measured by ROA, because they all have p-values greater than 0.1

For model two (ROE) under pooled OLS, the  $R^2$  value is 0.264 and the adjusted  $R^2$  value is 0.219. The  $R^2$  value of 0.264 indicates that 26.4% of the variations in ROE is accounted for by the explanatory variables in this study. Whereas, the adjusted  $R^2$  of 0.219 showcases that the explanatory variables that actually influenced the dependent variable accounted for 21.9% of the variability in ROE. The model as a whole is considered significant, well fitted and valid ( $F = 5.83, p < 0.01$ ). Logically, the variable with the highest beta coefficient (-0.310) is *ASTAN* and was statistically significant at 0.01 level ( $p < 0.01$ ), hence, having a significant unique contribution in explaining ROE. Other variables that have significantly contributed in explaining ROE include: *FSZ* ( $\beta = -0.177, p < 0.01$ ), *BCOMP* ( $\beta = -0.136, p < 0.1$ ), *LEV* ( $\beta = -0.085, p < 0.01$ ), *BSZ* ( $\beta = 0.075, p < 0.1$ ), *RMCM* ( $\beta = 0.015, p < 0.05$ ), and *FAG* ( $\beta = 0.001, p < 0.01$ ). Contrastingly, variables like: *BMT* ( $\beta = -0.224, p > 0.1$ ), *CEOT* ( $\beta = 0.010, p > 0.1$ ), *BEXP* ( $\beta = -0.095, p > 0.1$ ), *RMCS* ( $\beta = -0.007, p > 0.1$ ), *RMCC* ( $\beta = 0.020, p > 0.1$ ), and *RMPD* ( $\beta = -0.005, p > 0.1$ ), do not make a statistically significant contribution to firm performance, as measured by ROE as all their p-values go beyond 0.1.

The third model is market-to-book ratio (MTB) which its result is not much different from ROA and ROE under pooled OLS. For MTB, the  $R^2$  value is 0.219 and the adjusted  $R^2$  value is 0.163. The  $R^2$  value of 0.219 specifies that 21.9% of the variations in MTB is accounted for by the independent variables in this study. Whereas, the adjusted  $R^2$  of 0.163 demonstrates that the independent variables that essentially impacted on the dependent variable accounted for 16.3% of the variations in MTB. The model as a whole

is considered significant, well fitted and valid ( $F = 4.36, p < 0.01$ ). More so, the variable with larger beta coefficient (-0.185) is *ASTAN* with  $p < 0.05$ . This means that asset tangibility has made a unique and statistical significant contribution in explaining MTB. The like of this variable (*ASTAN*) are: *BCOMP* ( $\beta = -0.118, p < 0.1$ ), *BSZ* ( $\beta = 0.070, p < 0.1$ ), *RMCM* ( $\beta = 0.044, p < 0.05$ ), *FSZ* ( $\beta = -0.021, p < 0.01$ ), and *FAG* ( $\beta = 0.002, p < 0.01$ ). On the other hand, variables in the model that do not make any statistically significant contribution ( $p$ -values  $> 0.1$ ) in explaining MTB involve: *BMT* ( $\beta = 0.014, p > 0.1$ ), *CEOT* ( $\beta = 0.003, p > 0.1$ ), *BEXP* ( $\beta = -0.087, p > 0.1$ ), *RMCS* ( $\beta = -0.007, p > 0.1$ ), *RMCC* ( $\beta = 0.012, p > 0.1$ ), *RMPD* ( $\beta = -0.046, p > 0.1$ ), and *LEV* ( $\beta = -0.029, p > 0.1$ ).

Under the pooled OLS, the independent variables (BSZ, BCOMP, and RMCM) that made a statistically significant contribution behaved in a similar fashion for all the three models (ROA, ROE, and MTB). The control variables (FSZ, FAG, ASTAN) also behave in a similar direction with those control variables regarding ROA and MTB, while all the control variables (FSZ, LEV, FAG, and ASTAN) made a statistically significant contribution in explaining ROE.

Under the fixed effect (FE) model, ROA has an  $R^2$  of 0.895 and adjusted  $R^2$  of 0.859 which means that all the independent variables in the model explained 89.5% of the variations in ROA, while those independent variables that really affects the dependent variable (ROA) accounted for 85.9% of variations in it (ROA). The model as a whole is considered significant, well fitted and valid ( $F = 3.81, p < 0.01$ ). The variable with the strongest unique contribution in explaining ROA is leverage (LEV) ( $\beta = 0.200$ ), and was found to be statistically significant ( $p < 0.01$ ). In addition, board composition (BCOMP)

was also found to be statistically significant with ROA ( $\beta = -0.153$ ,  $p < 0.1$ ), alongside CEO tenure ( $\beta = 0.025$ ,  $p < 0.1$ ).

Other variables that were found not be statistically significant with ROA under the FE model are: *BSZ* ( $\beta = 0.058$ ,  $p > 0.1$ ), *BMT* ( $\beta = 0.013$ ,  $p > 0.1$ ), *BEXP* ( $\beta = -0.086$ ,  $p > 0.1$ ), *RMCS* ( $\beta = 0.004$ ,  $p > 0.1$ ), *RMCC* ( $\beta = 0.087$ ,  $p > 0.1$ ), *RMCM* ( $\beta = 0.005$ ,  $p > 0.1$ ), *RMPD* ( $\beta = -0.008$ ,  $p > 0.1$ ), *FSZ* ( $\beta = 0.005$ ,  $p > 0.1$ ), *FAG* ( $\beta = -0.011$ ,  $p > 0.1$ ), and *ASTAN* ( $\beta = 0.129$ ,  $p > 0.1$ ).

Regarding the second model (ROE) under the FE model, it has an  $R^2$  of 0.84 and an adjusted  $R^2$  of 0.785, indicating that all the independent variables in the study contributed about 84% of the variation in ROE, while the explanatory variables that really affect the dependent variable accounted for 78.5% variation in ROE. The model is statistically significant ( $F = 1.92$ ,  $p < 0.05$ ), showing the goodness of fit and the validity of the model. Under the FE model, the variable that makes a strong unique contribution in explaining ROE is board expertise (BEXP) ( $\beta = -0.152$ ,  $p < 0.1$ ). Other variables that were also found to be statistically significant with ROE consist of: *RMCC* ( $\beta = 0.108$ ,  $p < 0.05$ ), *LEV* ( $\beta = 0.072$ ,  $p < 0.05$ ), *RMCM* ( $\beta = 0.011$ ,  $p < 0.1$ ). Whereas those variables that were found not to be statistically significant with ROE comprised of: *BSZ* ( $\beta = 0.060$ ,  $p > 0.1$ ), *BCOMP* ( $\beta = -0.077$ ,  $p > 0.1$ ), *RMCS* ( $\beta = -0.005$ ,  $p > 0.1$ ), *RMPD* ( $\beta = -0.000$ ,  $p > 0.1$ ), *FSZ* ( $\beta = -0.009$ ,  $p > 0.1$ ), *FAG* ( $\beta = -0.004$ ,  $p > 0.1$ ), *ASTAN* ( $\beta = -0.020$ ,  $p > 0.1$ ).

The third dependent variable (MTB) under the Fixed Effect model has an  $R^2$  of 0.896 and adjusted  $R^2$  of 0.860, signifying that 89.6% of the variability in MTB was accounted

for by all the explanatory variables in the model, while those variables that really impacted the dependent variable accounted for 86% of the variability in the model (MTB). The model is fit and valid having a statistical significant as a whole ( $F = 3.94$ ,  $p <0.01$ ). The variables that have a statistical significant with MTB include: board composition (BCOMP) ( $\beta = -0.075$ ,  $p <0.1$ ), CEO tenure ( $\beta = 0.006$ ,  $p <0.05$ ), leverage (LEV) ( $\beta = 0.103$ ,  $p <0.01$ ), and firm age (FAG) ( $\beta = -0.007$ ,  $p <0.1$ ). While variables that show no significant effect on MTB are: *BSZ* ( $\beta = 0.030$ ,  $p >0.1$ ), *BMT* ( $\beta = 0.006$ ,  $p >0.1$ ), *BEXP* ( $\beta = -0.045$ ,  $p >0.1$ ), *RMCS* ( $\beta = 0.002$ ,  $p >0.1$ ), *RMCC* ( $\beta = 0.042$ ,  $p >0.1$ ), *RMCM* ( $\beta = 0.005$ ,  $p >0.1$ ), *RMPD* ( $\beta = -0.017$ ,  $p >0.1$ ), *FSZ* ( $\beta = 0.003$ ,  $p >0.1$ ), and *ASTAN* ( $\beta = 0.075$ ,  $p >0.1$ ).

Based on the results of the three models (ROA, ROE, and MTB) obtained under the Fixed Effect (FE) model, it can be seen that the variables with a significant effect on the dependent variables moved in somewhat the same direction for ROA and MTB, while differently for ROE. However, the explanatory variables under the FE model behaved differently as compared to pooled OLS model as displayed in Table 4.28.

Under the Random Effect (RE) model, the first dependent variable (ROA) has an  $R^2$  of 0.041 (4.1%) which is a bit smaller, indicating that only 4.1% of the variability in ROA was contributed by the explanatory variables in the model. However, based on the Wald chi2 (38.76,  $p <0.01$ ), the model is valid and well fitted. Those variables that made a strong unique contribution in explaining the variability in the dependent variable, represented by ROA comprised of: *BCOMP* ( $\beta = -0.118$ ,  $p <0.05$ ), *RMCC* ( $\beta = 0.127$ ,  $p <0.1$ ), *RMPD* ( $\beta = -0.015$ ,  $p <0.01$ ), *FSZ* ( $\beta = -0.027$ ,  $p <0.05$ ), and *LEV* ( $\beta = 0.134$ ,  $p <0.01$ ). While the variables that do not statistically contributed in explaining the

variability in ROA are: board size (BSZ) ( $\beta= 0.088$ ,  $p >0.1$ ), board meeting (BMT) ( $\beta= 0.012$ ,  $p >0.1$ ), CEO tenure ( $\beta= 0.018$ ,  $p >0.1$ ), board expertise (BEXP) ( $\beta= -0.044$ ,  $p >0.1$ ), risk management committee size (RMCS) ( $\beta= -0.002$ ,  $p >0.1$ ), risk management committee meeting (RMCM) ( $\beta= 0.004$ ,  $p >0.1$ ), firm age (FAG) ( $\beta= 0.003$ ,  $p >0.1$ ), and asset tangibility (ASTAN) ( $\beta= -0.053$ ,  $p >0.1$ ) since they have p-values greater than 0.1.

For ROE under the RE model, it has an improved  $R^2$  value of 0.133 over that of ROA. Meaning that 13.3% of the variation in ROE was accounted for by the explanatory variables in the model. Based on the Wald chi2 (24.22,  $p <0.05$ ), the model is said to fit and valid. Essentially, the variables that made a statistically significant contribution in explaining the dependent variable (ROE) consist of: *BSZ* ( $\beta= 0.076$ ,  $p <0.1$ ), *BCOMP* ( $\beta= -0.098$ ,  $p <0.1$ ), *RMCC* ( $\beta= 0.127$ ,  $p <0.05$ ), *RMCM* ( $\beta= 0.011$ ,  $p <0.1$ ), and *FSZ* ( $\beta= -0.017$ ,  $p <0.05$ ). On the other hand, those variables that failed to make a statistical significant contribution in explaining ROE under the RE model are: *BMT* ( $\beta= -0.010$ ,  $p >0.1$ ), *CEOT* ( $\beta= 0.002$ ,  $p >0.1$ ), *BEXP* ( $\beta= -0.098$ ,  $p >0.1$ ), *RMCS* ( $\beta= -0.007$ ,  $p >0.1$ ), *RMPD* ( $\beta= -0.003$ ,  $p >0.1$ ), *LEV* ( $\beta= 0.014$ ,  $p >0.1$ ), *FAG* ( $\beta= 0.001$ ,  $p >0.1$ ), and *ASTAN* ( $\beta= -0.200$ ,  $p >0.1$ ) because they all have p-values above 0.1.

Lastly, under the RE model, MTB has an  $R^2$  value of 0.039 lower than those for ROA and ROE. The  $R^2$  value of 0.039 indicates that only 3.9% of the variation in MTB was accounted for by the explanatory variables in the model. With a Wald chi2 (38.06,  $p <0.01$ ), the model is deemed well fit and valid. In regards to statistical significant contribution in explaining the dependent variable (MTB), the following explanatory variables made that contribution: *BCOMP* ( $\beta= -0.092$ ,  $p <0.05$ ), *RMCC* ( $\beta= 0.064$ ,  $p$

$<0.1$ ),  $RMPD$  ( $\beta = -0.035$ ,  $p < 0.01$ ),  $FSZ$  ( $\beta = -0.014$ ,  $p < 0.05$ ), and  $LEV$  ( $\beta = 0.065$ ,  $p < 0.01$ ). Whereas, the explanatory variables that failed to make any statistical significant contribution towards explaining  $MTB$  involve:  $BSZ$  ( $\beta = 0.045$ ,  $p > 0.1$ ),  $BMT$  ( $\beta = 0.006$ ,  $p > 0.1$ ),  $CEOT$  ( $\beta = 0.003$ ,  $p > 0.1$ ),  $BEXP$  ( $\beta = -0.025$ ,  $p > 0.1$ ),  $RMCS$  ( $\beta = -0.001$ ,  $p > 0.1$ ),  $RMCM$  ( $\beta = 0.006$ ,  $p > 0.1$ ),  $FAG$  ( $\beta = 0.001$ ,  $p > 0.1$ ), and  $ASTAN$  ( $\beta = -0.028$ ,  $p > 0.1$ ) since they all have p-values beyond the threshold of 0.1.

In a nutshell, the variables that show a significant impact on all the three models (ROA, ROE, and MTB) under the pooled OLS, FE model, and RE model behave in a distinct manner. Moreover, the R-squared ( $R^2$ ) values under the three techniques (Pooled OLS, FE model, and RE model) of analysis have a wide variation for the three regression models (ROA, ROE, and MTB) in this study. For instance, the  $R^2$  values are better under the FE model, than those under Pooled OLS and RE model. Whereas the  $R^2$  values under the Pooled OLS are far better than those under the RE model. As explained earlier, the study utilizes the Panel Corrected Standard Errors (PCSEs) in executing the main regression analysis as the data in this study are posed with the problems of heteroskedasticity and serial correlation.

#### **4.12 Panel Corrected Standard Errors (PCSEs) Estimation**

For the purpose of executing the three regression models (ROA, ROE, and MTB) in this study, the correlated Panel Corrected Standard Errors (PCSEs) was used because the data suffers from the problem of heteroskedasticity and serial correlation, and the essence is to obtain best linear unbiased estimator (BLUE) for the coefficients (Gujarati, 2003). However, the problem of serial correlation and cross-sectional dependence is

usually inhabited in panel data (Jönsson, 2005), and most panel data do not simultaneously handle this problem, and which, if not properly addressed can cause inefficiency in coefficient estimation and biases in the estimation of standard errors (Reed & Ye, 2011).

Nevertheless, the OLS is ideal (based linear unbiased) for panel data models if the errors are assumed to be produced in a spherical (uncomplicated) manner (Beck & Katz, 1995). For this assumption to hold under the OLS, it is pertinent to assume that all the error processes have equal variance (homoscedasticity) and are independent of each other (no serial and spatial correlation). If these assumptions are met, the panel data should be estimated using OLS and OLS standard errors are correct, and where the assumptions are disrupted, there is no assurance that the ordinary least squares (OLS) standard errors will be correct. In this case, therefore, there will be other available estimators that make more efficient utilization of the data (Beck & Katz, 1995).

Therefore, in handling the issues of heteroskedasticity, serial correlation, and/or cross-sectional dependence (contemporaneous correlation), various techniques are used that include; the Feasible Generalized Least Square (FGLS) initiated by Parks (1967) and the modified version of the OLS estimator known as the Panel Corrected Standard Errors (PCSEs) developed by Beck and Katz (1995). However, Parks' FGLS estimator is used for panel data models where the errors indicate the presence of panel data contemporaneous correlation, heteroskedasticity, and serial correlation, but can only be used where  $T$  (time) is as big as  $N$  (number of units) (Beck, Katz, Alvarez, Garrett, & Lange, 1993).

Moreover, Parks' FGLS estimator cannot be used in solving contemporaneous and serial correlation unless  $N$  is equal to  $T$  ( $N = T$ ) or  $N$  is greater than  $T$  ( $N > T$ ) (Blackwell III, 2005; Beck & Katz, 1995; Reed & Ye, 2011). Another setback of the Parks' FGLS estimator is that it often overvalues the standard errors and is biased in finite samples which arise due to the fact that the true variance and the covariance matrix is not known (Reed & Ye, 2011).

Based on the flaws in the use of the Parks' FGLS estimator in correcting for contemporaneous correlation, heteroskedasticity, and serial correlation in finite samples, Beck and Katz (1995) suggested that the use of a modified version of OLS that can handle the said problems in panel data which is known as 'Panel Corrected Standard Errors' (PCSEs). Beck and Katz (1995) further buttressed that the combination of ordinary least squares alongside PCSEs allows for accuracy of variability estimation, where panel error structures are present, without conveying the serious problems produced by the Parks method. As such, the PCSEs estimator was developed for panel models with panel heteroskedasticity, serial correlation, and contemporaneous correlation.

Based on the results of Monte Carlo analysis obtained by Beck and Katz (1995) in comparing the efficiency of Parks' FGLS and OLS with PCSEs when both corrected for serially correlated errors, results for PCSEs were found to be more efficient as they are two and a half larger than the Parks' standard errors. Similarly, Reed and Ye (2011) conducted a Monte Carlo analysis to evaluate the efficiency of common panel data estimators when auto-correlation (serial correlation) and contemporaneous correlation and the results obtained specified that the PCSEs estimators have the best overall

performance considered where  $N$  is less than or equal to  $T$  ( $N \leq T$ ) and where  $N$  is greater than  $T$  ( $N > T$ ). As a result, Reed and Ye (2011) recommended the use of PCSEs in handling panel models with heteroskedasticity, serial correlation, and contemporaneous correlation.

Consequently, this study follows the likes of other studies (for instance, Bitzer & Stephan, 2007; Mosca, 2007) that utilized OLS with Panel Corrected Standard Errors (PCSEs) in solving the problem of panel models with serial correlation, heteroskedasticity, and contemporaneous correlation. More importantly, PCSEs estimator has been extensively adopted as Beck and Katz (1995) who popularized the method have over 5000 citations across the web. In order to examine the relationship between the explanatory variables and the dependent variables in this study, the PCSEs estimator was utilized using STATA version 14, with the command *xtpcse*. However, the regression results from OLS with PCSEs estimator in this study are presented in the subsequent tables.

#### **4.13 Evaluation of the Models**

For the purpose of this study, multivariate regression analysis was conducted for the three models using STATA (version) 14, in order to test the predictive power of board of directors' attributes (board size, board composition, board meeting, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meeting), risk management practice and disclosure on firm performance variables (ROA, ROE,

and MTB). More so, the essence of this multivariate regression analysis is to ascertain the predictive power of each explanatory variable on the dependent variables.

For this reason, this part is divided into three subsections. The first section investigates the relationship between the independent variables: board of directors' attributes (board size, board composition, board meeting, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meeting), risk management practice and disclosure and firm performance as proxied by ROA. While the second subsection examines the relationship between the independent variables and firm performance as proxied by ROE. Whereas, the third subsection investigates the relationship between the independent variables and firm performance as represented by MTB.

#### **4.13.1 Model 1 (ROA as Dependent Variable)**

The result of testing the hypotheses for model 1 (ROA) was utilized through OLS with Panel Corrected Standard Errors (PCSEs) estimator in order to evaluate firm performance, which is presented in Table 4.29. The PCSEs result presented in Table 4.29 portrays some important indicators like R-square ( $R^2$ ), which is the coefficient of determination and it evaluates the goodness of fit for the regression model. Moreover, other indicators are the P-values, the WaldChi2 statistic, and the beta ( $\beta$ ) coefficients (showing the impact of an independent variable on a dependent variable). The PCSEs regression result is presented in Table 4.29 as in the following:

**Table 4.29***Main Regressions Results (PCSEs) for Models 1, 2, and 3 (Dependent variables = ROA, ROE, and MTB)*

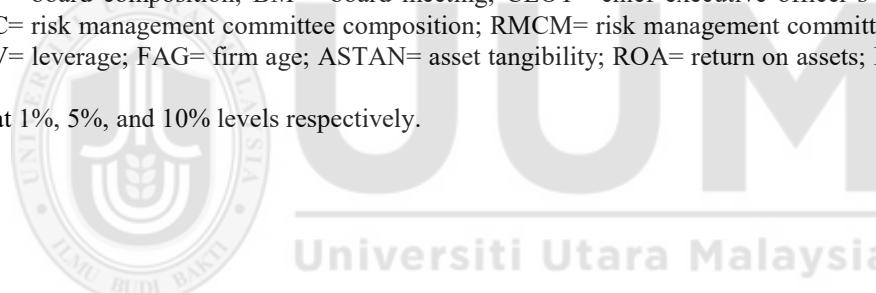
Variables	Model 1 (ROA)			Model 2 (ROE)			Model 3 (MTB)		
	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t
Constant	1.080	6.06***	0.000	0.579	4.90***	0.000	0.578	6.10***	0.000
<b>Independent</b>									
BSZ	0.141	4.45***	0.000	0.077	3.12***	0.002	0.069	4.66***	0.000
BCOMP	-0.233	-2.12**	0.034	-0.134	-2.17**	0.030	-0.141	-2.92**	0.003
BMT	0.023	0.53	0.595	-0.023	-1.21	0.226	0.011	0.53	0.539
CEOT	0.021	1.67*	0.094	0.003	1.68*	0.092	0.002	1.21	0.225
BEXP	-0.168	-1.90*	0.058	-0.095	-1.87*	0.062	-0.084	-1.91*	0.056
RMCS	-0.014	-2.05**	0.040	-0.007	-1.89*	0.059	-0.008	-2.23**	0.025
RMCC	0.017	0.21	0.837	0.020	0.33	0.739	0.028	0.76	0.448
RMCM	0.028	2.82***	0.005	0.016	3.87***	0.000	0.049	2.74***	0.006
RMPD	-0.017	-2.01**	0.045	-0.005	-1.01	0.315	-0.048	-2.34**	0.019
<b>Control</b>									
FSZ	-0.041	-8.04***	0.000	-0.018	-4.18***	0.000	-0.022	-7.97***	0.000
LEV	-0.060	-2.30**	0.021	-0.085	-4.80***	0.000	-0.011	-1.25	0.210
FAG	0.003	11.62***	0.000	0.001	6.87***	0.000	0.002	12.50***	0.000

Table 4.29 (Continued).....

ASTAN	-0.370	-4.10***	0.000	-0.308	-4.57***	0.000	-0.204	-4.30***	0.000
<hr/>									
Observations		225			225			225	
No. of groups		45			45			45	
Wald chi2		12644.14***			33380.50***			10499.51***	
(13)									
R <sup>2</sup>		0.210			0.2637			0.211	
Prob>chi2		0.0000			0.0000			0.0000	

Notes: BSZ= board size; BCOMP= board composition; BM = board meeting; CEOT= chief executive officer's tenure; BEXP= board expertise; RMCS= risk management committee size; RMCC= risk management committee composition; RMCM= risk management committee meeting; RMPD= risk management practice and disclosure; FSZ= firm size; LEV= leverage; FAG= firm age; ASTAN= asset tangibility; ROA= return on assets; ROE= return on equity; MTB= market-to-book ratio.

\*\*\*, \*\*, and \* represent significant at 1%, 5%, and 10% levels respectively.



In this model (ROA), the value of  $R^2$  as revealed in Table 4.29 is 0.210. This means that the regression model explains 21% of the variation in firm performance as measured by ROA. As a result, the outcome is considered reasonable. Furthermore, the  $R^2$  value of 21% is an indication that the variance in ROA as a measure of firm performance, was statistically accounted for by the regression equation (independent variables). The same result in Table 4.29 also reveals that the model is significant ( $p<0.01$ ), indicating the validity of the model utilized.

In consideration of hypothesis testing, the beta coefficients are employed. The beta coefficients are used to determine the impact of each independent variable on the dependent variable. In this regard, the higher the beta coefficient, the greater impact an explanatory variable has on a dependent variable.

In this model, the variable with the largest beta coefficient (-0.370) is asset tangibility (ASTAN) and was also found to be statistically significant at the 0.01 level ( $p<0.01$ ). This shows that *ASTAN* made a strongest unique contribution in explaining the performance variable as represented by ROA. In addition, the beta coefficient score for board composition (BCOMP) is (-0.233) which is a bit lower than that of *ASTAN*. In the same vein, *BCOMP* was also found to be statistically significant at the 0.05 level ( $p<0.05$ ).

Likewise, other variables that were found to be statistically significant with ROA include: board size (BSZ) ( $\beta=0.141$ ,  $p<0.01$ ), chief executive officer tenure (CEOT) ( $\beta=0.021$ ,  $p<0.1$ ), board expertise (BEXP) ( $\beta= -0.168$ ,  $p<0.1$ ), risk management committee size (RMCS) ( $\beta= -0.014$ ,  $p<0.05$ ), risk management committee meeting

(RMCM) ( $\beta=0.028$ ,  $p<0.01$ ), risk management practice and disclosure (RMPD) ( $\beta= -0.017$ ,  $p<0.05$ ), firm size (FSZ) ( $\beta= -0.041$ ,  $p<0.01$ ), leverage (LEV) ( $\beta= -0.060$ ,  $p<0.05$ ), and firm age (FAG) ( $\beta=0.003$ ,  $p<0.01$ ). This means that these eleven variables (ASTAN, BSZ, BCOMP, CEOT, BEXP, RMCS, RMCM, RMPD, FSZ, LEV and FAG) were found to be statistically significant to firm performance, as measured by ROA.

Whereas, board meeting (BMT) ( $\beta=0.023$ ,  $p>0.1$ ) and risk management committee composition (RMCC) ( $\beta=0.017$ ,  $p>0.1$ ), failed to make a statistically significant contribution to firm performance, as measured by ROA, because they all have p-values greater than 0.1. However, the result is displayed in Table 4.29.

#### **4.13.2 Model 2 (ROE as Dependent Variable)**

The second model which considers ROE as the dependent variable and board of directors' attributes (board size, board composition, board meeting, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meeting), risk management practice and disclosure as independent variables, has an  $R^2$  value of 0.2637 as displayed in Table 4.29. This means that the regression model explains 26.37% of the variation in firm performance as measured by ROE. As such, the outcome is considered reasonable. Besides, the  $R^2$  value of 26.37% is an indication that the variance in ROE as a measure of firm performance, was statistically accounted for by the regression equation (independent variables). The result in Table 4.29 also shows that the model is significant ( $p<0.01$ ) signifying the goodness of fit and validity of the model used.

In terms of significant contribution to the model, asset tangibility (ASTAN) has the highest beta coefficient (-0.308) and was also found to be statistically significant at the 0.01 level ( $p<0.01$ ). This indicates that *ASTAN* has made a strong unique contribution in explaining the performance variable as represented by ROE. Moreover, the beta coefficient value of board composition (BCOMP) is (-0.134) which is slightly lower than that of *ASTAN*, and was also found to be statistically significant at the 0.05 level ( $p<0.05$ ). Additionally, other variables that were found to contribute significantly in explaining ROE comprised of: board size (BSZ) ( $\beta=0.077$ ,  $p<0.01$ ), CEO tenure ( $\beta=0.003$ ,  $p<0.1$ ), board expertise (BEXP) ( $\beta= -0.095$ ,  $p<0.1$ ), risk management committee size (RMCS) ( $\beta= -0.007$ ,  $p<0.01$ ), risk management committee meeting (RMCM) ( $\beta=0.016$ ,  $p<0.01$ ), firm size (FSZ) ( $\beta= -0.018$ ,  $p<0.01$ ), leverage (LEV) ( $\beta= -0.085$ ,  $p<0.01$ ), and firm age (FAG) ( $\beta=0.001$ ,  $p<0.01$ ).

On the other hand, board meeting (BMT) ( $\beta= -0.023$ ,  $p>0.1$ ), risk management committee composition (RMCC) ( $\beta=0.020$ ,  $p>0.1$ ), and risk management practice and disclosure (RMPD) ( $\beta= -0.005$ ,  $p>0.1$ ) have failed to make a statistically significant contribution to firm performance as measured by ROE, because they all have p-values greater than 0.1 as can be seen in Table 4.29.

#### **4.13.3 Model 3 (MTB as Dependent Variable)**

In this model, the value of  $R^2$  as revealed in Table 4.29 is 0.211, which means that the regression model explains 21.1% of the variation in firm performance variable as explained by Market-to-book ratio (MTB). Hence, the  $R^2$  value is considered reasonable and has statistically accounted for 21.1% variation in the model. Moreover, the model

was found to be statistically significant ( $p<0.01$ ), indicating the goodness of fit and validity of the model used as shown in Table 4.29.

The variable with the largest beta coefficient in this model is asset tangibility (ASTAN) ( $\beta= -0.204$ ,  $p<0.01$ ). Therefore, *ASTAN* has made a strong unique contribution in explaining the performance variable as measured by MTB. Additionally, the beta coefficient value of board composition (BCOMP) is (-0.141) which is slightly lower than that of *ASTAN*, and was also found to be statistically significant at the 0.01 level ( $p<0.01$ ). Likewise, other variables that made a significant contribution in explaining MTB are; board size (BSZ) ( $\beta=0.069$ ,  $p<0.01$ ), board expertise (BEXP) ( $\beta= -0.084$ ,  $p<0.1$ ), risk management committee size ( $\beta= -0.008$ ,  $p<0.05$ ), risk management committee meeting (RMCM) ( $\beta= 0.049$ ,  $p<0.01$ ), risk management practice and disclosure (RMPD) ( $\beta= -0.048$ ,  $p<0.05$ ), firm size (FSZ) ( $\beta= -0.022$ ,  $p<0.01$ ), and firm age (FAG) ( $\beta= 0.002$ ,  $p<0.01$ ).

In contrast, board meeting (BMT) ( $\beta=0.011$ ,  $p>0.1$ ), chief executive officer tenure (CEOT) ( $\beta=0.002$ ,  $p>0.1$ ), risk management committee composition (RMCC) ( $\beta=0.028$ ,  $p>0.1$ ), and leverage ( $\beta= -0.011$ ,  $p>0.1$ ), were not able to make any significant statistical contribution to firm performance, as measured by MTB, for the reason that they all have p-values greater than 0.1 as delineated in Table 4.29.

## **4.14 Hypotheses Testing**

### **4.14.1 Model 1, 2, and 3 (ROA, ROE, and MTB) and Results of Analysis**

Under this section, discussions and decisions were made regarding the hypotheses and results of analysis that examines the relationship between board attributes (board size, board composition, board meeting, CEO tenure, board expertise), risk management committee structure (risk management committee size, risk management committee composition, risk management committee meeting), risk management practice and disclosure (as independent variables), and firm size, leverage, firm age, and asset tangibility (as control variables) and the dependent variables represented by ROA, ROE, and MTB.

#### **4.14.1.1 Board of Directors' Attributes and Firm Performance (ROA, ROE, and MTB)**

In this section, the results of the multivariate regression analysis between the board of directors' attributes (board size, board composition, board meeting, CEO tenure, board expertise) and firm performance (ROA, ROE, and MTB) with their corresponding coefficients and p-values are presented as shown in Table 4.29. Consistent with the prediction, Board size (*BSZ*) has a statistically significant positive effect on ROA ( $\beta=0.141$ ,  $p<0.01$ ), ROE ( $\beta=0.077$ ,  $p<0.01$ ), and MTB ( $\beta=0.069$ ,  $p<0.01$ ). These results signify that the relationship between *BSZ* and performance is positive and statistically significant, indicating that the higher the board size, the better the performance (ROA, ROE, and MTB) of listed financial service firms in Nigeria. This indicates that a larger board will have the resources required to reduce the power of the CEO and to make

decisions effectively and efficiently that may aid in boosting the performance of a firm. Consequently, this outcome has supported hypotheses 1a, 1b, and 1c. Also, the result is in line with the findings of Chang and Leng (2004) that found a positive and significant association between board size and firm performance of listed Malaysian companies. Onakoya *et al.* (2014) also documented that board size is significant and positively associated with the performance of Banks in Nigeria.

Equally, Suhail *et al.* (2017) document that board size has a significant positive effect on the performance of Indonesian quoted firms. Also, Ogege and Boloupremo (2014) found that board size has significant positive relation to the performance of Deposit Money Banks (DMBs) in Nigeria. Furthermore, the result is in concordance with Fidanoski *et al.*, (2013) who found that board size is positively related to the performance of banks in Macedonia. Likewise, Chechet *et al.* (2013) document that board size has a significant positive effect on the performance of DMBs in Nigeria. The result has also accorded with agency theory which holds that larger board size enhances the performance of firms because it certifies an effective and efficient monitoring of management, which reduces the power of the chief executive officer (CEO) on corporate boards of directors (Singh & Harianto, 1989).

This finding is also consistent with the resource dependence theory which assumes that the size of the board is expected to enhance operations and performance of firms since the board of directors will provide intangible resources to the firm (Hillman & Dalziel, 2003; Kiel & Nicholson, 2003). Contrary to the significant finding regarding board size, Ghosh (2006) finds that board size exerts a negative impact on firm performance in

India. Similarly, Arora and Sharma (2016) document a negative, but significant relationship between board size and firm performance in India.

However, the significant positive effect of board size on performance of listed financial service firms in Nigeria might be due to the contribution of various board members towards the success of the organization since it was assumed that an increased board will provide human resource to the organization which may eventually enhance operations and performance (Hillman & Dalziel, 2003). Moreover, the mean for board size for the full sample is 10.58 which is within a conventional range to make the board effective in decision making (Odewale, 2016), monitoring managerial actions, and having great skills and expertise required to contribute to the betterment of their companies. Akpan and Amran (2014), found that board size has a significant positive effect on performance of manufacturing companies in Nigeria, and the average of board size is 9.7, which may be considered as small in the Nigerian context, and recommend companies to be cautious about a sizeable number of boards who serve as agents tend to be more concerned with their interests. However, since the average size of board as found in this study is 10.58 and has shown a significant impact on firm performance, listed financial service firms in Nigeria should have an average of 10 members and/or above it, although, depending on the size and need of the firm.

For board composition (*BCOMP*) variable, the result of this study shows that it has a significant negative effect on firm performance, ROA ( $\beta = -0.233, p < 0.05$ ), ROE ( $\beta = -0.134, p < 0.05$ ), and MTB ( $\beta = -0.141, p < 0.01$ ). Hypotheses 2a, 2b, and 2c, which state that there is a positive relationship between board composition and firm performance (ROA, ROE, and MTB) are partially supported. However, the result moves in an

opposite direction with the agency theory which states that a firm that has a larger proportion of non-executive directors stands in a better position to have an improved performance (Hermalin & Weisbach, 1988). Also, as an assumption of the resource dependence theory, an organization with non-executive directors are expected to have individuals with a lot of potentials that may help to improve the performance of the organization (Provan, 1980).

This result is consistent with the finding of Farhan *et al.* (2017) who state that board independent (composition of nonexecutive directors) has a significant negative association with performance of listed companies in the United Arab Emirate (UAE). Likewise, Chechet *et al.* (2013) who report that board composition has a significant negative effect on the performance of deposit money banks in Nigeria. Likewise, Chahine and Safieddine (2011) found a significant relationship between board independence (composition of non-executive directors on the board) and firm performance after controlling for the nonlinear relationship between board independence and operating performance. Similar studies that document a significant negative relationship between board composition and firm performance are but not limited to; (Bhagat & Black, 2002; Fernandes, 2008; Yermack, 1996).

The findings of this study which shows that board composition has a significant negative effect on the performance of listed financial service firms in Nigeria may be that the outside directors have little knowledge of the firm and their number may become a distraction to the progress of the business. This view is in line with Baysinger and Hoskisson (1990) who opined that outside directors may not effectually understand the business due to their usual intervention on multiple boards. They (Baysinger &

Hoskisson) further argue that banks may prefer to focus on their strategies and exclude outside directors from their boards (that is when making decisions). Moreover, Geneen (1984), and Vance (1983) argued that outside directors have no adequate time, knowledge and skills to perform the functions required of them effectively since they are not involved in the day-to-day running of the business. On the contrary, a well-diversified firm may prefer to have a significant number of non-executive directors who may offer their potentials in the improvement of performance (Baysinger & Hoskisson, 1990; Chahine and Safieddine, 2011). As such, "empirical investigations should control for non-linearities in the relationship between bank performance and board independence" (Chahine & Safieddine, 2011, p. 213).

On the opposite, some studies found a significant positive effect of board composition on firm performance. For instance, Reguero-Alvarado and Bravo (2017) quote that board independence (defined as the composition of nonexecutive directors) has a significant effect on the performance of U.S listed companies. Likewise, Harvey Pamburai *et al.* (2015) reported that composition of the board of directors has a positive impact on the performance of the firm in South Africa. Paul *et al.*, (2015) also found that board composition has significant positive relation to the performance of microfinance banks in Nigeria. However, other studies document a non-significant relationship between board composition and firm performance (for example, Hermalin & Weisbach, 1991; Marn & Romual, 2012; Narwal & Jindal, 2015; Onakoya *et al.*, 2014).

From Table 4.29, the regression result shows that board meeting (*BMT*) has no significant effect on the performance of listed financial service companies in Nigeria,

ROA ( $\beta=0.023, p >0.1$ ), ROE ( $\beta= -0.233, p <0.05$ ), and MTB ( $\beta= -0.233, p <0.05$ ). This means that an increase in board meeting will not lead to any increase in firm performance (ROA, ROE, and MTB). Therefore, hypotheses 3a, 3b, and 3c which state that the board meeting frequency has a positive relationship with firm performance (ROA, ROE, and MTB), are not supported. This finding is also not in support of agency theory which presumes that agency theory assumes that with frequent meetings, boards exhibits significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the performance of firms (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999).

This result is consistent with Arora and Sharma (2016) who proclaimed that board meeting frequency has no significant negative influence on performance (ROA and ROE) of companies in India. In the same vein, Gavrea and Stegorean (2012) report that board meeting has no significant effect on the firm performance of companies listed on the Bucharest Stock Exchange of Romania. Also, Jackling and Johl (2009) found that board meetings have no significant relation with the financial performance of listed firms in India. Others who also articulated that board meeting is not significantly affecting firm performance include Donashana and Ravivathani (2014), Garcia-Sanchez (2010), Kamardin (2009), Kyereboah-Coleman (2008), and Rodriguez-Fernandez *et al.* (2014). Whereas, Hassan *et al.* (2016) who report that board meeting frequency has a significant negative impact on the performance of Palestinian listed firms.

The reason behind insignificance of *BMT* on performance may be attributed to the fact that most agendas of board meetings are set by the CEOs and other directors could not spare extra productive time to control over the management, and spent most of their

time on routine issues which limit vital opportunities to the directors (Jensen, 1993). In relation to Nigerian environment, Kantudu and Ismail (2015) buttressed that non-significance of a board meeting to firm performance might be due to lack of financial expertise on the board when conducting meetings. Nonetheless, even if some of the directors are knowledgeable in financial matters, their failure to regularly attend meetings would reasonably disrupt the discussion and consequently affects the company's outcome. Moreover, the board may be fully or partially controlled by the management which might potentially affect the decisions of the business on their personal interests at the expense of the business objectives.

Moreover, Rodriguez-Fernandez *et al.* (2014) argued based on their findings that the higher number of meetings in Spanish companies might be related to culture, where socio-personal relations are extremely rooted and play a significant role. In regards to the corporate environment, the authors expressed that frequency of board meetings does not essentially result in higher performance, as it involves a higher expense that is not commensurate with the benefit derived. Therefore, social and business encounters should be distinguished for the reason to assure board meetings to be free of social encounters so that opportunity like having intra-company interaction will be formed, which may allow the board to be well informed on most aspects of the firm's operations. Based on the regression result from Table 4.29, CEOT tenure (CEOT) was found to be positive, and significantly related to performance of listed financial service firms in Nigeria, ROA ( $\beta=0.021$ ,  $p<0.1$ ) and ROE ( $\beta=0.003$ ,  $p<0.1$ ), but has no significant effect on MTB ( $\beta=0.002$ ,  $p>0.1$ ). This result has support for hypotheses 4a and 4b which state that CEO tenure has a positive relationship with firm performance (ROA and ROE), while the result fails to support hypothesis 4c. The result regarding model 1 and 2 (ROA

and ROE) concord with both agency theory and resource dependence theory which presumes that the longer tenured CEO is deemed to understand the economic environment better, and hence, helps to boost the efficiency and performance of a firm (Afrifa & Tauringana, 2015; Eisenhardt, 1989). This finding is concomitant with that of Goldsmith (2012) who finds that CEO tenure has significant positive impact on the performance of US financial service firms. In a coherent manner, Kyereboah-Coleman (2008) found that CEO's tenure has significant positive impact on the profitability of firms in Africa.

This is also what has been documented by Sanda *et al.* (2011) that the tenure of the chief executive officer has a significant positive effect on firm performance in Nigeria. The positive significant effect of CEO tenure on firm performance might be due to their understanding of the business environment (Pfeffer & Salancik, 1978) in which their companies operate, thereby helping to develop an effective business strategy that will boost the operations and performance of their firms. Linking this result with what has been obtained from the descriptive statistics (Table 4.3) of this study, the average tenure of a CEO in the Nigerian financial service firms is 3.6 years and a maximum of 9 years. This has gone with the requirements of the NCCG 2011 on the average number of years a CEO can serve. Moreover, due to the abnormalities (for instance, poor performance and liquidity) in the Nigerian financial service sector that led to the removal of 178 directors in the Central Bank of Nigeria (CBN) in 1996, the tenure of the CEO has therefore been revised to the maximum of 10 years in the 2011 code by the CBN (Aburime, Gannon, & Corrado, 2011; Sanusi, 2010). In response to this, it can be argued that listed financial service firms in Nigeria have strictly adhered to the requirement of

the NCCG 2011 which consequently boost their performance in terms of ROA and ROE as can be evidenced from the regression result in Table 4.29.

In view of model 3 from Table 4.29, CEOT has no significant impact on performance as represented by MTB ( $\beta=0.002$ ,  $p>0.1$ ). Therefore, hypothesis 4c which states that CEO tenure has a positive relationship with firm performance (MTB), is not supported. The non-significant of CEOT on MTB may emanate from the reason that the CEO may lack financial knowledge or have little experience on the stock market operation which is highly dynamic in nature due to the forces of demand and supply in the market. Specifically, the result is consistent with Afrifa and Tauringana (2015) who document that CEO tenure has no significant effect on the performance of SMEs in the UK, and Al-Matari *et al.* (2014) who report that CEO tenure has positive but no significant impact on performance of listed companies in the Muscat Security Market (MSM) in Oman. Contrarily, this result contradicts the assumption of resource dependence theory which states that environmental uncertainties and contingencies determine the power and control in an organization which in turn determine the tenure of major administrators. This means that the longer the tenure of a CEO, the better the performance and value of a firm because he will have more understanding of the economic environment within which the organization operates (Pfeffer & Salancik, 1978; Tsai *et al.*, 2006).

However, some argued that a long tenured CEO can only have a negative influence on the performance of a firm. For instance, Belkhir (2009) expresses that the tenure of CEO has significant negative relation to firm performance in the banking industry in United Arab Emirates (UAE). Similar studies that found a negative relation between CEO

tenure and firm performance are but not limited to; Al-Matari *et al.* (2012), Evans *et al.* (2010), Limbach *et al.* (2015), and Maury (2006).

Considering the regression result from Table 4.29, board expertise (BEXP) has a negative statistical significance of firm performance at 0.01 significant level, ROA ( $\beta = -0.168$ ,  $p < 0.1$ ), ROE ( $\beta = -0.095$ ,  $p < 0.1$ ), and MTB ( $\beta = -0.084$ ,  $p < 0.1$ ). Therefore, hypotheses 5a, 5b, and 5c which state that board expertise has a positive effect on firm performance (ROA, ROE, and MTB) are partially supported. This means that a 1-unit increase in a director with multiple directorships on a board will lead to a decrease in performance by 16.8%, 9.5%, and 8.4% for ROA, ROE, and MTB respectively. Even though this result is significant, yet, it goes in the opposite direction with a resource dependence theory which argues that directors holding multiple positions (board expertise) on several boards rely on external resources with the view to enhance firm performance (Kiel & Nicholson, 2003). To elaborate, Burt (1984) and Hillman and Dalziel (2003) further stressed that directors serving on multiple boards (board expertise) play an important role in disseminating vital information among companies which aid in saving transaction costs in handling environmental uncertainties, thus enhancing the performance of firms.

Nevertheless, the significant negative relationship between board expertise and performance obtained in this study is consistent with Hauser (2013) who finds that busyness of a director has a significant negative effect on the performance of S&P 1500 composite firms in the US. Likewise, a study in Nigeria by Nwonyuku (2016) finds that board expertise has a negative impact on the performance of listed food and beverage companies. By considering venture-backed Initial Public Offerings (IPOs) in the US,

Field *et al.* (2013) found that boards with busy directors have a significant negative effect on performance. These reported findings from the literature have therefore supported the result of this study in relation to board expertise and firm performance. On the contrary, the result from Table 4.29 which shows that *BEXP* has a significant negative effect on firm performance has contradicted the relevant findings of other scholars. For instance, Kapoor and Goel (2017) found that board expertise (termed as busy directors) has a significant positive association with firm performance and earnings quality in India. While in the United States, Elyasiani and Zhang (2015) found that multiple directorships (board expertise) has a significant positive impact on the performance of bank holding companies. Similarly, Andreou *et al.* (2014) found that the proportion of directors sitting on the boards of other companies has a positive association with firm performance and financial management decisions in the United State. Other scholars belong to this assertion include Fich and Shivdasani (2006) and Hillman and Dalziel (2003).

More importantly, the NCCG 2011 has stated that despite the benefits associated with board expertise (multiple directorships) to a company, the concurrent service of board members on too many boards may interfere with their individual ability to fully discharge the responsibilities allotted to them. Forthwith, shareholders should take caution in appointing outside directors attached with many obligations and commitment into their boards. On this basis, the significant negative result obtained may be due to the reason that much expense spent on multiple directors on the board is not commensurate with the benefits derived, as the directors (serving on several boards) may be busy with other obligations and commitments that may hinder them from discharging their full responsibilities on a specific board.

In the same way, the significant negative impact of *BEXP* on firm performance obtained in this study may be due to lack of understanding by the directors with multiple directorships on how the business of the company is been operated, since a director with multiple directorships will be busy trying to fulfill his/her obligations and commitments with the boards of various companies, it may, therefore, become difficult to have full understanding of how various companies operates especially if they are not from the same industry. In concurrence to this statement, Baysinger and Hoskisson (1990) contend that for the reason that since outside directors habitually interfere on multiple boards, they may find it difficult to successfully understand the business.

In relation to the aforementioned reasons of significant negative impact of *BEXP* on firm performance, other factors that may lead to this result in Nigerian environment include: (1) failure of the boards of listed financial service firms to appoint the directors with the right mix of skill and competencies to deliver what is required of them by the investors; (2) inability of the directors to personally identify and address issues on the board's competencies and ways to maintain and enhance it. Moreover, the failure of the directors to adequately take proactive measures and collective responsibilities to ensure that professional skills with the business environment and technical knowledge of the directors are preserved, and might lead to the significant negative effect (Nwonyuku, 2016).

#### **4.14.1.2 Risk Management Committee Structure and Firm Performance**

Under this section, a discussion was made on three variables regarding the risk management committee structure and firm performance (ROA, ROE, and MTB). These

variables are; risk management committee size (RMCS), risk management committee composition (RMCC), and risk management committee meeting (RMCM). The findings under this section as displayed in Table 4.29 partially supported hypothesis 6a, 6b, and 6c, because from the regression result in Table 4.29, risk management committee size (RMCS) has significant negative impact on firm performance; ROA at the 0.05 level ( $\beta = -0.014$ ,  $p < 0.05$ ), ROE at the 0.1 level ( $\beta = -0.007$ ,  $p < 0.1$ ), and MTB at the 0.05 level ( $\beta = -0.008$ ,  $p < 0.05$ ). This means that any increase in the size of the risk management committee by 1, will result in a decrease in performance by 1.4%, 0.7%, and 0.8% for ROA, ROE, and MTB respectively. Despite the limited studies on the risk management committee structure, this result is consistent with that of Ng *et al.* (2012) who report that the risk management committee size is negatively associated with underwriting risk of insurance companies in Malaysia.

In consensus to the foregoing, Pantamee (2014) finds that risk management committee size has a significant negative effect on the corporate social responsibility disclosure in Nigeria. Pagach and Warr (2010) also reported that enterprise risk management does not help in creating the value of the firm. However, this result is not in support of the notion that a board with a larger number has an opportunity of having more skilful members that will aid in enhancing the performance of a firm. To link to this, Subramaniam *et al.* (2009) contend that a company with a large number of board members has a greater chance of having directors with the required skills to manage activities and even involved in a subcommittee that has been dedicated to risk management. In contrast to the significant negative effect of *RMCS* on firm performance, Pathan (2009) submits that small bank boards have a positive relationship with more risk-taking in the United States ‘bank holding companies’. Moreover, Tao

and Hutchinson (2013) argue that the effectiveness of the risk management committee depends on size and composition, which eventually improves the performance of a firm.

Specifically, the negative effect of risk management committee size on firm performance might result from high administrative costs expended by the companies in running the affairs of members of the committee in the Nigerian financial service firms. Concurrent to this, Barde (2009) and Pantamee (2014) buttressed that a larger number of members on every board consumes administrative costs that diminish a firm's profitability. Thus, the company might be spending on the members of the committee for them to provide fruitful ideas on management of risk and improvement of performance, but members of the committee might have failed either due to the inadequate experience of the nature of risk involved, or due to shady understanding of uncertainties surrounding the business environment.

More to note, the Nigerian economy might be difficult to understand by many since it is emerging in nature with a capital market that is operating at a rudimentary level. Again, the business environment is affected by the insurgency and social unrest that resulted from attacks and bombings in the dreaded group 'BOKO-HARAM'. This has made the business environment so dynamic and undefinable in nature by various business experts since the year 2010. This has made the business environment 'volatile' that might distort the efforts of the risk management committee members in discharging their duties effectively, which may finally influence the performance of listed financial service firms in Nigeria.

For risk management committee composition (RMCC), the regression result from Table 4.29 shows that it has no significant effect on firm performance at the conventional significant levels; ROA ( $\beta=0.017$ ,  $p>0.1$ ), ROE ( $\beta=0.017$ ,  $p>0.1$ ), and MTB ( $\beta=0.017$ ,  $p>0.1$ ). Hence, this result does not support hypotheses 7a, 7b, and 7c, which state that the risk management committee composition has a positive relationship with firm performance (ROA, ROE, and MTB). In addition, this finding is not in support of the NCCG 2011, which states that all publicly traded companies should have a majority of non-executive directors in their risk management committee that may aid in increasing their performance. Equally, Hermalin and Weisbach (1988) opine that a board that is engulfed by a high proportion of non-executive directors stands a better position to shareholders' interest, and may elevate firm performance through an effective oversight function upon the management.

Studies on risk management structure are seldom, yet, Tao and Hutchinson (2013) who examined the role of risk and compensation committees in overseeing and managing the risk behaviour of financial firms in Australia found that risk committee composition is positively related to risk and firm performance. In the same way, Pantamee (2014) finds that risk management committee composition is positively associated with corporate social responsibility disclosure in the Nigerian petroleum marketing industry. On the contrary, Ng *et al.* (2012) found that risk management committee independence (composition) is negatively associated with underwriting risk of insurance companies in Malaysia.

Meanwhile, the insignificant effect of RMCC on the performance of listed financial service firms in Nigeria might be due to mismatched of the board members to carry out

their duties. That is, members of the risk management committee might have an insignificant number of persons with adequate skill and experience required to handle risk among them, and the significant portion of members may not necessarily agree with the opinion of the experienced and skilful member. As a result, the best decision for the organization required might be deterred since appointments in Nigeria are mostly not on merit, but on favouritism, and decisions in a group are based on the highest number. Coherently, this view is in line with the opinion of Okponobi (2011), who states that most appointments in Nigeria are not based on skill, experience, or qualification, but based on what is labelled as 'MAN KNOWS MAN' or social and political affiliations.

Furthermore, other reasons for the result obtained in this study between *RMCC* and firm performance might be due to poor information flow from the top management to the risk management committee, which results in inefficient communication flow among committee members (Nwonyuku, 2016). Another essential point is that appointing a higher number of directors with multiple directorships among the non-executive directors on the *RMCC* may affect the activities of the committee since busy directors will be full of engagements trying to fulfil their various obligations and commitments on the boards of other companies where they are also directors. Moreover, this outcome might be due to the absence of actual independence of the board which might have been hindered by a powerful CEO, lack of adequate experience and skill to tackle environmental uncertainties, and composed of older and/or less effective or productive individuals particularly in the Nigerian financial institution.

The third and final variable under the risk management structure is risk management committee meeting (*RMCM*). Based on the regression result from Table 4.29, *RMCM*

has a significant positive effect on the firm performance of listed financial service firms in Nigeria at the 0.01 level; ROA ( $\beta=0.028$ ,  $p<0.01$ ), ROE ( $\beta=0.016$ ,  $p<0.01$ ), and MTB ( $\beta=0.049$ ,  $p<0.01$ ). For this reason, hypotheses 8a, 8b, and 8c which state that *RMCM* has a positive relationship with firm performance (ROA, ROE, and MTB) are supported. This means that as the frequency of risk management committee meeting increases by 1, so also the performance of listed financial service firms will increase by 2.8%, 1.6%, and 4.9% for ROA, ROE, and MTB respectively. In the same fashion, this result is in agreement with agency theory which presumes that with frequent meetings, boards exhibit significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the performance of firms (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999). Then again, IFC (2010) and Muhammad Sori and Mohamad (2009) conclude that the frequency of meetings portrays the level of commitment by a committee in performing their predetermined functions.

By the same token, the significant positive effect of *RMCM* on firm performance is in concordance with the findings of prior research. For instance, Aebi *et al.* (2012) found that frequency of meetings of risk committee has a significant positive effect on the performance of banks in the US during the financial crisis. In Nigeria, Pantamee (2014) finds that risk management committee meeting is significant and positively influencing corporate social responsibility disclosure in the petroleum marketing sector. Concisely, the more the number of board meetings the healthier for a company (in terms of performance and value), because the boards will have more and better chances of making various decisions (Khan & Javid, 2011; Pearce & Zahra, 1992).

The significant positive effect of *RMCM* on firm performance of the listed financial service firm in Nigeria does not occur by chance as this has been the expectation. The

reason for this result might be due to the fact that Nigerian business environment has been volatile within the period under study. The business environment was unstable due to reshuffling of economic policies by the government, such as; introducing of the Treasury Single Account (TSA) policy (which has been explained earlier) (Okonji, 2016), and restrictions on the importation of raw food items especially rice, which affected a significant number of businessmen and at last affected the Nigerian financial system. As a result, the risk management committee might be busy with several meetings trying to cope with the situation in the business environment so as to reduce the volatility of their business operations, which may ultimately improve their performances. Therefore, this might be the reason for the significant positive effect of *RMCM* on the performance of listed financial service firms in Nigeria.

In view of the foregoing, Conger *et al.* (1998) and Lipton and Lorch (1992) clarify that board meeting is considered as a vital resource on solidifying board of directors' effectiveness. Once more, the higher the frequency of board meetings, the higher the probability to obtain better performance. This, therefore, corroborates with the finding of this study that risk management committee meeting has a significant positive effect on performance (as represented by ROA, ROE, and MTB) of the listed financial service firm in Nigeria. However, despite the significant positive effect of *RMCM* on firm performance obtained in this study, Ng *et al.* (2012) claim that risk management committee meeting has no significant effect on risk taking on Malaysian insurance companies.

#### **4.14.1.3 Risk Management Practice and Disclosure and Firm Performance**

In this section, the study discusses the relationship between risk management practice and disclosure and firm performance, as measured by ROA, ROE, and MTB. Nevertheless, the result from Table 4.29 reveals that risk management practice and disclosure (RMPD) has a significant, but negative effect on firm performance; ROA ( $\beta = -0.017$ ,  $p < 0.05$ ) and MTB ( $\beta = -0.048$ ,  $p < 0.05$ ), while having an insignificant negative effect on ROE ( $\beta = -0.005$ ,  $p > 0.1$ ). This has therefore partially supported hypotheses 9a and 9c which state that risk management practice and disclosure has a positive relationship with firm performance (as represented by ROA, and MTB). Whereas, the result contradicts hypothesis 9b which states that risk management practice and disclosure has a positive relationship with firm performance (ROE). Conjointly, this result means that the more the disclosures of risk management practices of listed financial service firms in Nigeria, the more their profitability will shrink by almost 1.7% and 4.8% for ROA and MTB respectively. However, this result has contravened the proposition of agency theory which presumes that disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), that enable more incentive package for managers to provide more information in annual reports (Depoers, 2000) which may attract more investors and ultimately increases performance.

Moreover, the result obtained in this study from Table 4.29 regarding *RMPD* and performance (ROA and MTB), goes in the opposite direction with the findings of Nahar *et al.* (2016) who report that risk disclosure, existence of risk management committee, and a number of risk committees are significantly and positively related to banks performances in Australia. Again, Sharif and Lai (2015) found that corporate

information disclosures have a significant positive effect on the firm performance of nonfinancial firms and utility firms listed on Bursa Malaysia. Meaning that the more a firm discloses information about its activities to investors, the more it will generate profit. In light of this, other studies document a positive impact of a firm's information disclosure on its value. For instance, Patel and Dallas (2002) report that a company's disclosure increases its price-to-book-ratio, and even creates an increased value (Akhigbe & Martin, 2006).

Howbeit, the result obtained from Table 4.29 which shows a negative impact of *RMPD* on performance (ROA and MTB) is consistent with that of Zhang (2007) who finds that corporate disclosures (regarding Sarbanes-Oxley Act 2002) have a negative impact on the firm's value (i.e. destruction of value). The negative effect may be due to several reasons in Nigerian environment. Case in point, too much administrative costs might be associated with the disclosure of the activities and procedures of risk management. More so, the costs of producing and disseminating the information on risk management might be unfavorable since a lot of pages on it (risk management) need to be produced which may consume lots of costs, as annual and financial reports in Nigeria are mostly in print versions. Relevance instance, Bethel (2007) reports that prior to the introduction of Electronic Data Gathering, Analysis and Retrieval (EDGAR) information system utilized by the United States SEC, 3 million pages of information disclosures by companies pass daily and which consumes a cost of \$0.15/page.

Withal, since there is adequate (strong) disclosure of information on risk management practice by listing financial service firms in Nigeria as seen in the frequency distribution result, such information might have been pirated by friendly companies in the same

sector, which in turn, may have a negative effect on the company's performance. In addition, the cost of information disclosure related to risk management practice by the companies, which is expected to generate a positive return might not be commensurate to the returns if the users of such information do not use it for the purpose expected. For instance, Farvaque, Refait-Alexnadre, and Saïdane (2011) report that opinion polls have shown that 85% of finance directors in the U.S are of the view that the costs of implementing Sarbanes-Oxley act were not commensurate with their benefits, even after their four years of adoption by companies.

Relatively, the information disclosure of risk management practice by the listed financial service firms in Nigeria might remain redundant due to none use or lack of proper utilization of it (information) by the investors, which might lead to insignificant effect (in terms of ROE) or significant negative effect of their performances (in terms of ROA and MTB). In effect, Farvaque *et al.* (2011) quote that "as well as the costs of establishing disclosure, the disclosure also raise informational costs, which are probably even more problematic with regard to the objective. The question here is about how the information received by the investor is transformed into usable knowledge that can be used to value the firm. In fact, in the end, the disclosure is desirable in order to allow shareholders to exert control, by voting or by leaving, and to found their decisions about the purchasing and selling of shares" (p. 19).

#### **4.14.1.4 Control Variables and Firm Performance**

For the purpose of this study, four control variables were used, viz: firm size, leverage, firm age, and asset tangibility. The use of firm size as a control variable was justified by

some scholars (e.g., Aljifri & Moustafa, 2007; Ghosh, 2006), as it may affect firm performance due to the various distinctions of companies in terms of size. In terms of leverage, it has been controlled for in this study because organizations are more probable to disclose relevant information in order to meet the requirements of funds borrowers which may affect their performance (Haniffa & Cooke, 2005). On firm age, as an organization becomes older, its management may acquire more skills, abilities, and competencies over time (Stinchcombe, 1965), hence, influencing the performance of firms. The fourth control variable is asset tangibility, because a firm that has a higher proportion of its assets as tangibles (e.g., plant and equipment), are more probable to debt choices which influence performance (MacKIE-MASON, 1990).

From the regression result in Table 4.29, firm size (FSZ) is negatively and statistically significant related to firm performance; ROA ( $\beta = -0.041$ ,  $p < 0.01$ ), ROE ( $\beta = -0.018$ ,  $p < 0.01$ ), and MTB ( $\beta = -0.022$ ,  $p < 0.01$ ). This result has contradicted the finding of Kakanda *et al.* (2016b) who documents that firm size (FSZ) has negative, but insignificant effect on the performance of listed consumer goods companies in Nigeria. However, this result coincides with the findings of Harvey Pamburai *et al.* (2015) and Kyereboah-Coleman and Biekpe (2006) who reported that larger firms are significantly more effective than smaller firms, due to their large economies of scales and recruiting of highly skilled employees. In the same line, Helmich (1977), Kumar (2004), and Pfeffer and Salancik (1978) argued that larger firms stand in a better position in their economic environment to employ individuals with great talents over their counterparts (small firms) in order to have an effective and efficient plan and decisions that will significantly assist in achieving organizational objectives.

For leverage (LEV), which is the second control variable, it was found to be negative, but statistically significant relation to firm performance; ROA ( $\beta=-0.060$ ,  $p<0.05$ ) and ROE ( $\beta=-0.085$ ,  $p<0.01$ ) which is similar to the findings of Arora and Sharma (2016), Haniffa and Hudaib (2006) and Harvey Pamburai *et al.* (2015). However, this result has contravened the finding of Adenikinju (2012) who reports that leverage has positive but insignificant impact on performance of quoted companies in Nigeria. Even though, the result indicates a statistical significance, yet, it contradicts the findings of similar studies (e.g., Chiang & Lin, 2011; Hurdle, 1974; Kang & Kim, 2011). As such, the result indicates that an increase in leverage by 1 unit, will result in a decrease in ROA by 0.060 and in ROE by 0.085, which does not mean well to a company because the profit generated will be used in offsetting the capital borrowed from lenders. On the other hand, *LEV* has negative, but no significant impact on performance ( $\beta=-0.011$ ,  $p>0.1$ ). This result is consistent with the finding of Al-Matari *et al.* (2014b) who claim that leverage has an insignificant negative effect on the performance of listed firms in Oman.

The third control variable which is firm age (FAG), has a significant positive effect on the performance of listed financial service firms in Nigeria; ROA ( $\beta=0.003$ ,  $p<0.01$ ), ROE ( $\beta=0.001$ ,  $p<0.01$ ), and MTB ( $\beta=0.002$ ,  $p<0.01$ ). Specifically, this result indicates that a 1-year increase in the age of a firm may lead to an increase in firm performance by 0.3%, 0.2%, and 0.1% for ROA, ROE, and MTB respectively. This result is consistent with that of Afrifa and Tauringana (2015) that found firm age to have a significant positive effect on the performance of small and medium enterprises (SMEs) in the UK. More so, this finding is constant with that of Ujunwa (2012) who documents that firm age has a significant positive effect on the performance of quoted companies in Nigeria. In essence, the finding may be due to technological advancement in the

production/service processes of modern businesses. In this sense, it is presumed that a firm that has been in operation for a longer period will have an economic advantage over smaller ones.

Asset tangibility (ASTAN) is the fourth and final control variable in this study. The result from Table 4.29 reveals a negative, but significant relationship between *ASTAN* and performance of listed financial service firms in Nigeria; ROA ( $\beta=-0.370$ ,  $p<0.01$ ), ROE ( $\beta=-0.308$ ,  $p<0.01$ ), and MTB ( $\beta=-0.204$ ,  $p<0.01$ ), which is consistent with Afrifa and Tauringana (2015) that found a significant (at the 1 % level) negative impact of asset tangibility on the performance of SMEs in UK. This result means that a 1-unit increase in asset tangibility will lead to a decrease in performance by 0.37, 0.308, and 0.204 for ROA, ROE, and MTB respectively. In essence, this may be due to the injudicious utilization of intangible assets to generate profit, but expending much in maintenance and up-keep of the assets. Likewise, this result is consistent with that of Onaolapo and Kajola (2010) who found that asset tangibility has a negative impact on performance non-financial quoted firms in Nigeria.

**Table 4.30***Summary of Hypotheses Related to Model 1 (ROA), Model 2 (ROE), and Model 3 (MTB)*

Hypothesis No.	Variables	Expected Signs	Model 1 (ROA) Hypothesis (a)			Model 2 (ROE) Hypothesis (b)			Model 3 (MTB) Hypothesis (c)		
			Coef.	p>t	Decision (Supported)	Coef.	p>t	Decision (Supported)	Coef.	p>t	Decision (Supported)
H <sub>1</sub>	BSZ	+-	0.141***	0.000	Yes	0.077***	0.002	Yes	0.069***	0.000	Yes
H <sub>2</sub>	BCOMP	+-	-0.233**	0.034	Partially	-0.134**	0.030	Partially	-0.141**	0.003	Partially
H <sub>3</sub>	BMT	+-	0.023	0.595	No	-0.023	0.226	No	0.011	0.539	No
H <sub>4</sub>	CEOT	+-	0.021*	0.095	Yes	0.003*	0.092	Yes	0.002	0.225	No
H <sub>5</sub>	BEXP	+-	-0.168*	0.058	Partially	-0.095*	0.062	Partially	-0.084*	0.056	Partially
H <sub>6</sub>	RMCS	+	-0.014**	0.040	Partially	-0.007*	0.059	Partially	0.028	0.448	No
H <sub>7</sub>	RMCC	+	0.017	0.837	No	0.020	0.739	No	0.049***	0.006	Yes
H <sub>8</sub>	RMCM	+	0.028**	0.045	Yes	0.016***	0.000	Yes	0.049***	0.006	Yes
H <sub>9</sub>	RMPD	+	-0.017***	0.000	Partially	-0.005	0.315	No	-0.048**	0.019	Partially
	FSZ	+-	-0.041***	0.000	N/A	-0.018***	0.000	N/A	-0.002***	0.000	N/A
	LEV	+-	-0.060**	0.021	N/A	-0.085***	0.000	N/A	-0.011	0.210	N/A
	FAG	+-	0.003***	0.000	N/A	0.001***	0.000	N/A	0.002***	0.000	N/A
	ASTAN	+-	-0.370***	0.000	N/A	-0.308***	0.000	N/A	-0.204***	0.000	N/A

Notes: BSZ= board size; BCOMP= board composition; BM = board meeting; CEOT= chief executive officer's tenure; BEXP= board expertise; RMCS= risk management committee size; RMCC= risk management committee composition; RMCM= risk management committee meeting; RMPD= risk management practice and disclosure; FSZ= firm size; LEV= leverage; FAG= firm age; ASTAN= asset tangibility; ROA= return on assets; ROE= return on equity; MTB= market-to-book ratio; N/A= Not Applicable.

\*\*\*, \*\*, and \* represent significant at 1%, 5%, and 10% levels respectively.

From Table 4.30, it can be seen that the hypotheses for the three models (ROA, ROE, and MTB) and their respective decisions are individually reported. Under model 1 (ROA),  $H_1$ ,  $H_4$ , and  $H_8$  are supported,  $H_2$ ,  $H_5$ ,  $H_6$ , and  $H_9$  are partially supported, while  $H_3$  and  $H_7$  are not supported. For model 2 (ROE),  $H_1$ ,  $H_4$ , and  $H_8$  are supported,  $H_2$ ,  $H_5$ , and  $H_6$  are partially supported, whereas  $H_3$ ,  $H_7$ , and  $H_9$  are not supported. However, for model 3 (MTB),  $H_1$ ,  $H_7$ , and  $H_8$  are supported,  $H_2$ ,  $H_5$ , and  $H_9$  are partially supported, while  $H_3$ ,  $H_7$  and  $H_6$  are not supported.

Generally, the result obtained in this study from multivariate regression analysis (Panel Corrected Standard Errors) depicts that some hypotheses were fully supported, some partially supported, while others were not supported. Precisely, based on the summary of the hypotheses of the three models (ROA, ROE, and MTB) in this study as presented in Table 4.30, only  $H_1$  and  $H_8$  were fully supported,  $H_2$ ,  $H_4$ ,  $H_5$ ,  $H_6$ ,  $H_7$ , and  $H_9$  are partially supported, while only  $H_3$  was not fully supported. Therefore, the summary of the overall result of hypotheses testing for this study is presented in Table 4.31 as thus.

**Table 4.31***Summary of Overall Results of Hypotheses Testing*

Hypothesis No.	Hypothesis Statement	Decision
H <sub>1</sub>	Board size has a positive relationship with firm performance.	Supported
H <sub>2</sub>	Board composition has a positive relationship with firm performance.	Partially supported
H <sub>3</sub>	Board meeting frequency has a positive relationship with firm performance.	Not supported
H <sub>4</sub>	CEO tenure has a positive relationship with firm performance.	Partially supported
H <sub>5</sub>	Board expertise has a positive relationship with firm performance.	Partially supported
H <sub>6</sub>	Risk management committee size has a positive relationship with firm performance.	Partially supported
H <sub>7</sub>	Risk management committee composition has a positive relationship with firm performance.	Partially supported
H <sub>8</sub>	Risk management committee meeting has a positive relationship with firm performance.	Supported
H <sub>9</sub>	Risk management practice and disclosure has a positive relationship with firm performance.	Partially supported

**4.15 Robustness Check**

For the purpose of examining the consistency of the main regression result and findings of this study, robustness test was performed. To this end, the sample was divided based on two groups of companies used in this study; (1) Banks and (2) Non-banks. Table 4.32 shows the result of Panel Corrected Standard Errors (PCSEs) for banks under the three (3) models (ROA, ROE, and MTB), while Table 4.33 displays the result of PCSEs for nonbanks. The PCSEs regression result is shown in Table 4.32 as thus:

**Table 4.32***Panel Corrected Standard Errors (PCSEs) Result for Banks*

Variables	Model 1 (ROA)			Model 2 (ROE)			Model 3 (MTB)		
	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t
Constant	-2.375	-2.02**	0.043	-1.194	-1.87*	0.062	-1.223	-1.91*	0.056
<b>Independent</b>									
BSZ	-0.011	-0.11	0.913	0.002	0.03	0.973	0.011	0.24	0.811
BCOMP	-0.048	-0.15	0.878	-0.077	-0.45	0.655	0.077	0.41	0.680
BMT	0.106	2.67***	0.008	0.017	0.79	0.431	0.057	2.48**	0.013
CEOT	0.041	1.08	0.280	0.011	1.72*	0.086	0.0141	2.12**	0.034
BEXP	0.589	1.75*	0.080	0.252	1.32	0.186	0.279	1.29	0.198
RMCS	0.003	0.54	0.587	-0.000	-0.06	0.949	0.000	0.15	0.877
RMCC	0.225	1.15	0.250	0.127	1.22	0.221	0.082	0.97	0.330
RMCM	-0.050	-2.21**	0.027	-0.022	-1.76*	0.078	-0.094	-2.02**	0.043
RMPD	-0.028	-1.86**	0.063	-0.015	-1.94*	0.053	-0.060	-1.70*	0.090
<b>Control</b>									
FSZ	0.089	2.11**	0.035	0.050	2.15**	0.032	0.037	1.84*	0.065
LEV	-0.529	-3.03***	0.002	-0.334	-3.31***	0.001	-0.032	-1.76	0.078
FAG	0.003	2.74***	0.006	0.001	1.72*	0.085	0.000	1.21	0.227

Table 4.32 (Continued).....

ASTAN	7.800	3.55***	0.000	4.436	3.69***	0.000	3.944	2.88**	0.004
Observations		75			75				75
No. of groups		15			15				15
Wald chi2		1552.65***			1199.95***				437.5***
(13)									
R <sup>2</sup>		0.392			0.390				0.317
Prob>chi2		0.0000			0.0000				0.0000
Wald Test for joint significance	Board Attributes	F-stat. p-value	23.48*** (0.000)			24.60*** (0.000)			20.70*** (0.000)
	Risk Mgt. Structure	F-stat. p-value	10.23** (0.017)			8.06** (0.045)			10.23** (0.0167)

Notes: BSZ= board size; BCOMP= board composition; BM = board meeting; CEOT= chief executive officer's tenure; BEXP= board expertise; RMCS= risk management committee size; RMCC= risk management committee composition; RMCM= risk management committee meeting; RMPD= risk management practice and disclosure; FSZ= firm size; LEV= leverage; FAG= firm age; ASTAN= asset tangibility; ROA= return on assets; ROE= return on equity; MTB= market-to-book ratio.

\*\*\*, \*\*, and \* represent significant at 1%, 5%, and 10% levels respectively.

From Table 4.32 which shows the result of PCSEs for banks, the  $R^2$  for ROA is 0.392, ROE is 0.39, and MTB is 0.317, indicating that 39.2%, 39%, and 31.7% of the variations in ROA, ROE, and MTB respectively, are explained by the models. Moreover, the three models under banks are significant at the 0.01 levels ( $p<0.01$ ), indicating the fitness and validity of the models. So also, the PCSEs result for nonbanks from Table 4.33 shows that ROA has an  $R^2$  of 0.339, ROE 0.401., and MTB 0.34, indicating that 33.9%, 40.1%, and 34% of the variations in ROA, ROE, and MTB respectively, are explained by the models. Furthermore, all the three models under non-banks financial service companies are significant at the 0.01 levels ( $p<0.01$ ), signifying that the models are valid and well fitted.

From the result of PCSEs for banks in Table 4.32, there are only three variables under board attributes that show a significant positive relationship with firm performance. Firstly, board meeting (BMT) has a significant positive effect on performance; ROA ( $\beta=0.106$ ,  $p<0.01$ ) and MTB ( $\beta=0.057$ ,  $p<0.05$ ). This result is different from the main regression output where *BMT* has no any significant effect on all the three models (ROA, ROE, and MTB). In essence, the result provides support for hypotheses 3a and 3c which state that the board meeting frequency has a positive relationship with firm performance (for ROA and MTB). In the same vein, the result is in support of agency theory which assumes that with frequent meetings, boards exhibit significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the performance of firms (Jensen, 1993; Lipton & Lorsch, 1992; Vafeas, 1999). This finding is consistent with Al-Matari *et al.* (2014a), Barisua *et al.* (2012), and Liang *et al.* (2013) that found a positive relationship between board meetings and firm performance. Yet, the PCSEs result for nonbanks is shown as thus:

**Table 4.33***Panel Corrected Standard Errors (PCSEs) Result for Nonbanks*

Variables	Model 1 (ROA)			Model 2 (ROE)			Model 3 (MTB)		
	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t	Coef.	t-stat.	p>t
Constant	0.110	0.16	0.043	0.114	0.34	0.734	0.159	0.44	0.662
<b>Independent</b>									
BSZ	0.314	4.81***	0.000	0.162	3.78***	0.000	0.141	4.43***	0.000
BCOMP	-0.334	-2.44**	0.015	-0.171	-2.57**	0.010	-0.177	-2.33**	0.020
BMT	-0.007	-0.13	0.900	0.043	-1.62	0.105	-0.002	-0.10	0.924
CEOT	0.016	0.96	0.337	0.000	0.15	0.881	0.000	0.20	0.839
BEXP	-0.346	-3.10***	0.002	-0.189	-3.11***	0.002	-1.172	-3.01***	0.003
RMCS	-0.040	-2.62***	0.009	-0.019	-2.33**	0.020	-0.019	-2.43**	0.015
RMCC	-0.075	-0.66	0.510	-0.033	-0.46	0.646	-0.044	-0.76	0.445
RMCM	0.058	4.67***	0.000	0.030	5.18***	0.000	0.082	4.26***	0.000
RMPD	-0.010	-1.16	0.245	-0.000	-0.01	0.995	-0.022	-0.99	0.320
<b>Control</b>									
FSZ	-0.462	-5.08***	0.000	-0.002	-0.20	0.884	-0.007	-0.54	0.592
LEV	-0.004	-0.25	0.805	-0.061	-3.49***	0.000	-0.017	-1.93*	0.054
FAG	0.005	11.02***	0.000	0.002	6.83***	0.000	0.002	11.53***	0.000

Table 4.33 (Continued)...

ASTAN	-0.462	0.16	0.870	-0.360	-5.29***	0.000	-0.159	-5.12***	0.000
Observations		150			150			150	
No. of groups		30			30			30	
Wald chi2			14098.71***			1951.89***			13911.41***
(13)									
R <sup>2</sup>			0.339			0.401			0.340
Prob>chi2			0.0000			0.0000			0.0000
Wald Test for joint significance	Board Attributes	F-stat. <i>p</i> -value	54.91*** (0.000)			35.62*** (0.000)			49.03*** (0.000)
	Risk Mgt. Structure	F-stat. <i>p</i> -value	23.32*** (0.000)			34.64*** (0.000)			23.32*** (0.000)

Notes: BSZ= board size; BCOMP= board composition; BM = board meeting; CEOT= chief executive officer's tenure; BEXP= board expertise; RMCS= risk management committee size; RMCC= risk management committee composition; RMCM= risk management committee meeting; RMPD= risk management practice and disclosure; FSZ= firm size; LEV= leverage; FAG= firm age; ASTAN= asset tangibility; ROA= return on assets; ROE= return on equity; MTB= market-to-book ratio.

\*\*\*, \*\*, and \* represent significant at 1%, 5%, and 10% levels respectively.

Coherently, the result regarding *BMT* for banks is not consistent with that for nonbanks (Table 4.33) of which board meeting shows no any significant effect on firm performance (ROA, ROE, and MTB). The reason for this may be due to the fact that banks had frequent meetings more than nonbanks, where banks have an average of 6 meetings and maximum of 13 meetings, while nonbanks have an average meeting of 5 times, and a maximum of 10 times. In this case, it can be argued that non-banks financial companies in Nigeria need to increase their frequency of meetings in order to have better performance.

Secondly, from the PCSEs result of banks in Table 4.32, CEO tenure (CEOT) has a significant positive effect on firm performance; ROE ( $\beta=0.011$ ,  $p<0.1$ ) and MTB ( $\beta=0.0141$ ,  $p<0.05$ ). Hence, the result provides support for hypotheses 4b and 4c alongside supporting resource dependence theory which assumes that a long tenured CEO of a firm is expected to have a better knowledge of the organization's economic environment which will help in the betterment of the firm (Pfeffer & Salancik, 1978). This result is not much that different from the main regression output, only that the *CEOT* has a significant positive effect on ROA and ROE for the main regression result. Contrastingly, *CEOT* for nonbanks has no any significant effect on firm performance for all the three models (ROA, ROE, and MTB). This difference of result regarding *CEOT* for banks and nonbanks might be that CEOs of banks are more concerned on their primary responsibilities of managing the affairs of their firms, since managers of Deposit Money Banks (DMBs) in Nigeria are mostly given targets of profit returns per annum by their owners, of which if they failed to meet, may result to the end of their positions in the organization.

Thirdly, board expertise (BEXP) is the final variable under board attributes that has a significant relationship with the firm performance for banks. From Table 4.32, the regression result shows that *BEXP* has significant positive impact on firm performance at the 0.1 level; ROA ( $\beta=0.589$ ,  $p<0.1$ ). This result indicates that there is an evidence of the inverted U relationship between *BEXP* and firm performance (represented by ROA), because the main regression result for the full sample shows a significant negative relationship between *BEXP* and firm performance (ROA, ROE, and MTB), while the split result shows a significant positive relationship between *BEXP* and firm performance (ROA only). This result supports hypothesis 5a which states that there is a positive relationship between *BEXP* and ROA.

Moreover, the result concords with a resource dependence theory which argues that the directors that serve on multiple boards will have more experience that can assist in attaining better performance (Burt, 1984; Hillman & Dalziel, 2003; Kiel & Nicholson, 2003). Notwithstanding, the result does not correspond with that for non-banks which show a negative effect of *BEXP* on firm performance ( $\beta=-0.346$ ,  $p<0.01$ ), ( $\beta=-0.189$ ,  $p<0.01$ ), and ( $\beta=-1.172$ ,  $p<0.01$ ) for ROA, ROE, and MTB respectively just like the main regression result for the full sample. More specifically, board size and board composition have no any effect on the three models (ROA, ROE, and MTB) for banks, resulting in the rejection of hypotheses 1a and 2a.

For risk management structure, it is only risk management committee meeting (RMCM) that has significant, but negative effect on performance of banks; ROA ( $\beta= -0.050$ ,  $p<0.05$ ), ROE ( $\beta=-0.022$ ,  $p<0.1$ ), and MTB ( $\beta=-0.094$ ,  $p<0.05$ ), indicating an inverted U relationship between *BTM* and firm performance, for the reason that the main

regression result for the full sample shows a significant positive relationship between *RMCM* and firm performance for the three models in this study. Therefore, this result partially supported hypotheses 8a, 8b, and 8c which state that there is a positive relationship between risk management committee meeting (*RMCM*) and firm performance (ROA, ROE, and MTB). Nevertheless, this result has gone in the opposite direction with that for nonbanks, which shows a significant positive effect of *RMCM* on firm performance ( $\beta=0.058, p<0.01$ ), ( $\beta=0.030, p<0.01$ ), and ( $\beta=0.082, p<0.01$ ) for ROA, ROE, and MTB respectively. Here, risk management committee size (*RMCS*) and risk management committee composition (*RMCC*) have no any significant impact on the performance of banks.

In regards to risk management practice and disclosure (*RMPD*), the result of Panel Corrected Standard Errors (PCSEs) in Table 4.32 for banks depicts a significant negative relationship between *RMPD* and firm performance; ROA ( $\beta=-0.028, p<0.05$ ), ROE ( $\beta=-0.015, p<0.1$ ), and MTB ( $\beta=-0.060, p<0.1$ ). This result has coincided with the main regression output for the full sample, thereby providing a partial support to the hypotheses 9a, 9b, and 9c. while for nonbanks, risk management practice and disclosure (*RMPD*) do not show any impact on their performance, rather, shows a negative relation ( $\beta=-0.010, p>0.1$ ), ( $\beta=-0.000, p>0.1$ ), and ( $\beta=-0.022, p>0.1$ ) for ROA, ROE, and MTB respectively.

On the other hand, the result of PCSEs for nonbanks financial service firms is presented in Table 4.33, where three variables (*BSZ*, *BCOMP*, and *BEXP*) under board attributes display a significant impact on firm performance. In this effect, board size (*BSZ*) has a significant positive influence on firm performance at the 0.01 level; ROA ( $\beta=0.314$ ,

$p<0.01$ ), ROE ( $\beta=0.162$ ,  $p<0.01$ ), and MTB ( $\beta=0.141$ ,  $p<0.01$ ). Therefore, this result is consistent with the main regression output for the full sample in this study. Hence, hypotheses 1a, 1b, and 1c which state that there is a positive relationship between board size and firm performance (ROA, ROE, and MTB) are fully supported. However, this result for nonbanks does not correspond with that of banks.

The reason for *BSZ* of nonbanks having a significant positive effect on performance, and that of banks without any significant impact on performance might be that banks have too many members on their boards which may distract the activities on board and also causes delays in decision making that may ultimately affect their performance. This assertion is based on the result of descriptive statistics, which shows that banks in Nigeria have an average number of members to be 14 and a maximum of 20, while average board size for nonbanks is 8 and maximum of 15. Moreover, the reason for the difference might be that the boards lack expertise or skill to make appropriate decisions (Odewale, 2016), and the inability of boards in Nigeria to concentrate on decision making (Pierce, 2011).

For board composition (*BCOMP*), the result is still consistent with the main regression output since the PCSEs result from Table 4.33 shows that *BCOMP* has a significant negative effect on firm performance at the 0.05 level; ROA ( $\beta=-0.334$ ,  $p<0.05$ ), ROE ( $\beta=-0.171$ ,  $p<0.05$ ), and MTB ( $\beta=-0.177$ ,  $p<0.05$ ). Additionally, the result has partially supported hypotheses 2a, 2b, and 2c which state that there is a positive relationship between board composition and firm performance (ROA, ROE, and MTB). In contrast, the result is contrary to that of banks that shows no significant impact of *BCOMP* on firm performance. The reason behind this difference might stem from the presence of

more dedicated outside directors on the boards of non-banks financial service firms than those of banks, despite the fact that both of them have a high proportion of non-executive directors on their boards as evidenced by the result of descriptive statistics.

Given consideration to board expertise (BEXP), the regression result from Table 4.33 shows that it has a significant negative effect on firm performance; ROA ( $\beta=-0.346$ ,  $p<0.01$ ), ROE ( $\beta=-0.189$ ,  $p<0.01$ ), and MTB ( $\beta=-1.172$ ,  $p<0.01$ ). This result is steady with the main regression output for the full sample of this study. As such, hypotheses 5a, 5b, and 5c which state that there is a positive relationship between board expertise and firm performance (ROA, ROE, and MTB) are partially supported. Case in point, under board attributes, board meeting (BMT) and CEO tenure failed to make any significant impact on performance relating to nonbanks.

Under the risk management structure, risk management committee size (RMCS) and risk management committee meeting (RMCM) were found to be significantly related to firm performance relating to nonbanks financial service firms in Nigeria. Explicitly, based on the regression output from Table 4.33, RMCS has significant negative impact on performance; ROA ( $\beta=-0.040$ ,  $p<0.01$ ), ROE ( $\beta=-0.019$ ,  $p<0.05$ ), and MTB ( $\beta=-0.019$ ,  $p<0.05$ ). This result is not different with main regression output for the full sample in this study, to that end, hypotheses 7a, 7b, and 7c which state that there is positive relationship between risk management committee size and firm performance (ROA, ROE, and MTB) are partially supported.

In consideration to RMCM, the regression result from Table 4.33 demonstrates that it has a significant positive influence on the performance of nonbanks, ROA ( $\beta=0.058$ ,

$p<0.01$ ), ROE ( $\beta=0.030$ ,  $p<0.01$ ), and MTB ( $\beta=0.082$ ,  $p<0.01$ ). This result is consistent with the main regression output for the full sample in this study, hence, a support for hypotheses 8a, 8b, and 8c. Moreover, it can be argued that *RMCM* has an inverted U relationship since it shows a significant negative impact on performance relating to banks as shown in Table 4.32. Howbeit, risk management committee composition (RMCC) does not show any significant influence on the performance of nonbanks as evidenced in Table 4.33 leading to rejection of hypotheses 7a, 7b, and 7c. In like manner, risk management practice and disclosure (RMPD) also fails to have any significant impact on performance relating to nonbanks, hence, hypotheses 9a, 9b, and 9c were not supported. In contrast, the result of banks regarding *RMPD* shows a significant negative impact on performance (see Table 4.32) which might be due to administrative costs relating to disclosure or underutilization of the disclosed information on risk management practices of banks.

More importantly, it should be noted that the risk management committee composition (RMCC) fails to have any significant effect on performance (ROA, ROE, and MTB) both for the main regression result and robust test results (under banks and non-banks), which might be due to mismatch of members of the committee, the subjective appointment of the committee members, high administrative costs, and poor information flow from top management to the committee members. As such, an examination of RMCC of financial service firms in Nigeria may go beyond composition by considering the expertise of committee members in terms of educational or professional qualifications.

As revealed in Table 4.32 and 4.33, the Wald test of joint significant indicates that both the board attributes variables and risk management structure variables were jointly significant in explaining the variability in firm performance (ROA, ROE, and MTB) at 1% and 5% significance levels. Precisely, board attributes under banks is significant; ROA ( $F=23.48, p<0.01$ ), ROE ( $F=24.60, p<0.01$ ), and MTB ( $F=20.70, p<0.01$ ), and nonbanks, ROA ( $F=54.91, p<0.01$ ), ROE ( $F=35.62, p<0.01$ ), and MTB ( $F=49.03, p<0.01$ ). This means that board attributes variables are jointly significant in explaining the variations in performance of both banks and nonbanks financial service firms in Nigeria.

On the other hand, the result of the Wald test from Tables 4.32 and 4.33 depicts that risk management structure variables have jointly significant in explaining the variations in performance of banks; ROA ( $F=10.23, p<0.05$ ), ROE ( $F=8.06, p<0.05$ ), and MTB ( $F=10.23, p<0.05$ ), and for nonbanks; ROA ( $F=23.32, p<0.01$ ), ROE ( $F=34.64, p<0.01$ ), and MTB ( $F=23.32, p<0.01$ ). This portrays that risk management structure variables are jointly significant in explaining the variations in performance of banks and nonbanks financial service firms in Nigeria.

#### **4.16 Summary of the Chapter**

This chapter presents the empirical results of the relationship between corporate governance mechanisms that involve the board attributes variables, risk management structure variables, risk management practice and disclosure and performance (ROA, ROE, and MTB) of listed financial service firms in Nigeria during the period of 2012 to 2016. The main objective of this study is to examine whether board attributes and some

elements (risk management structure and risk management practice and disclosure) of the 2011 revised CG code in Nigeria can improve the performance (accounting [ROA & ROE] and market [MTB]) of listed financial service firms in Nigeria during the period of 2012 to 2016. Given that there was weak corporate governance practice, inadequate disclosure and transparency in reporting, inadequate risk management frameworks for identifying, measuring and controlling the risks associated with the activities of deposit money banks (DMBs) and other financial service firms among others in Nigeria, which placed them (financial service firms) to be operating at the risk of failure (CBN, 2010). Therefore, this study provides new evidence of the influence of risk management structure and risk management practice and disclosure on firm performance. The result of this study indicates that there is an improvement in the application of the NCCG 2011 in Nigerian (especially in the listed financial service firms)

Univariate analysis was used to examine the extent of disclosure of risk management practices of quoted financial service firms in Nigeria, whereas multivariate analysis was used in examining the study hypotheses. In addition, a robust check was executed and compared to the main regression results to test its validity. The univariate analysis (frequency distribution) shows that there is adequate disclosure of risk management practice and disclosure in Nigeria. Moreover, the univariate analysis (t-test) signifies that there is no significant difference in the disclosure of risk management practice between banks and nonbanks financial service firms in Nigeria. For this reason, the requirements of the NCCG 2011 on disclosure of risk management practice of publicly traded firms in Nigeria is significantly adhered to by quoted financial service firms in Nigeria, hence, the objective one of this study is achieved.

The findings from multivariate analysis indicate that board size (BSZ), board composition (BCOMP), chief executive officer tenure (CEOT) board expertise (BEXP), risk management committee size (RMCS), risk management committee meeting (RMCM) and risk management practice and disclosure (RMPD) influence firm performance as there were significant relationships between them. On the overall, the board attributes variables and risk management structure variables have satisfied the effective monitoring and resource provision arguments put forward for their establishment.

The robustness check shows consistency with the main regression result, particularly to that of nonbanks. Three of the board attributes (BMT, CEOT, and BEXP) variables, risk management committee meeting (RMCM) and risk management practice and disclosure (RMPD) show significance impact on firm performance under the regression result for banks. Whereas, three other board attributes (BSZ, BCOMP, and BEXP), two risk management committee structure (RMCS and RMCM) variables illustrate the significance for nonbanks financial service firms. Therefore, this shows that there is no significant difference between banks and nonbanks financial service firms in the application of the NCCG 2011. Consequently, the revision of the CG code in Nigeria in 2011 seems to make a significant impact on the performance of listed financial service firms in Nigeria as is shown by the regression result. Thus, this provides evidence of the strength and improvement in the NCCG 2011. Lastly, the next chapter presents a summary and conclusions of the study.

## **CHAPTER FIVE**

### **SUMMARY AND CONCLUSION**

#### **5.1 Introduction**

This chapter presents the summary and conclusion of the overall thesis. The main purpose of this thesis is to examine the relationship between CG mechanisms (board attributes and risk management) and firm performance in Nigeria. To achieve this objective, a brief background of Nigeria has been presented to provide an understanding of the vital fundamental issues. A sample of 45 quoted financial service companies in Nigeria for five years (2012 to 2016) for data collection were used. Additionally, previous related studies and theories (agency and resource dependence theory) have been reviewed to provide a scientific foundation for building the relationship between firm performance and CG mechanisms as well as developing the research framework. Nine hypotheses (subdivided into twenty-seven) have been prepared based on theoretical arguments. Lastly, a discussion of methods and results of hypothesis testing in relating firm performance and CG mechanisms was presented. Specifically, the rest of this chapter is organized into the following: section 5.2 provides the summary of the study, while section 5.3 presents the implications of the study findings. Limitation of the study is discussed in section 5.4, whereas suggestion for future research is presented in section 5.5, and conclusion of the chapter is presented in section 5.6.

## 5.2 Summary of the Study

The motivation of this study was based on the issues stemming from the conflict of interests prevailing between the shareholders and management within the system of the corporate governance structure of any environment. However, this may influence the performances of companies (for example financial institutions) in various economies, including those in Nigeria. In mitigating the agency conflict that exists between shareholders and managers, several CG mechanisms have been recommended, which include; board characteristics, risk management characteristics to mention but a few (see Abdurrouf, 2011; Berle & Means, 1932; Bozec, 2005; Jensen & Meckling, 1976; Saibaba & Ansari, 2011).

Moreover, it is presumed that the financial reliability and stability, and profitability of a business solely depends on the process and practice of its corporate governance, and with effective corporate governance in operation, it is expected that the long-term value of stakeholders will be enhanced (Cohen, Krishnamoorthy & Wright, 2002). Similarly, a crucial and valuable stair in constructing and encouraging market confidence, alongside more stable and long-term investment flows, depends mainly on good established corporate governance (Barbu & Bocean, 2007). It is further argued that investors often ensure that a business is financially reliable and stable and that long-term profit generation is guaranteed before investing in a given venture (Millan, 2007).

Relatively, investors go after a company with a better performance because it is the essential requirement for an organizational survival and growth (Kakanda *et al.*, 2016a), which can come from an effective corporate governance. In the same vein, despite

willing to make investments in a more profitable firm, investors are also ready to make efficiency investments in a company with effective corporate governance (Stanwick, 2008). To achieve the objective of mitigating the agency conflict, the board of directors is considered as the most significant CG mechanism that is saddled with the responsibility of overseeing the decisions of the executives (Al-Manseer *et al.*, 2012, Kakanda, Salim, & Chandren, 2017). The main duty of the board is to direct the overall activities of the corporation in a more cautious and proactive way, since they are the highest authority in the decision-making process, and their directives to the organization enable a regular return to the shareholders (Topal & Dogan, 2014). The effectiveness of CG practice to alleviate the agency conflict and to improve firm performance is still an issue among various companies' stakeholders from a developed or emerging economy.

Nevertheless, prior studies have found that CG characteristics have an influence on the performance of firms, although with mixed findings (Abdulla, & Smith, 2015; Abdul-Qadir & Kwanbo, 2012; Afrifa & Tauringana, 2015; Al-Matari *et al.*, 2014a; Arora & Sharma, 2016; Arouri *et al.*, 2014; Elyasiani & Zhang, 2015; Fauzi & Locke, 2012; Gill & Obradovich, 2012; Guest, 2009; Hauser, 2013; Liang *et al.*, 2013; Marn & Romuald, 2012; Narwal & Jindal, 2015; O'Connel & Cramer, 2010; Ogege & Boloupremo, 2014; Pamburai *et al.*, 2015; Peter & David, 2014; Reguera\_Alvarado & Bravo, 2017; Vafeas, 1999; Velnampy & Pratheepkanth, 2013). Yet, these studies have failed to establish a relationship between risk management committee structure, risk management practice and firm performance. Therefore, this study extends previous research by examining the influence of CG mechanisms (concentrating on board attributes, risk management committee characteristics, and risk management practice and disclosure) on firm performance (accounting and market) of quoted financial service firms in Nigeria, an

environment that quietly differs from developed markets on the system of capital markets, legal requirements, and political, social, and cultural settings.

The data utilized in this study was extracted from the annual reports and accounts of forty-five listed financial service firms from 2012 to 2016 (amassing a total of 225 firm-year observations). Make this study more unique, a robustness check was conducted by separating the samples into banks and nonbanks financial service firms in Nigeria. This segregation enables an investigation into how CG practice affects performance in listed financial service firms in Nigeria. This is important as the NCCG 2011 is playing a significant role in determining the performance of quoted banks and nonbanks financial service firms in Nigeria. Primarily, the concentration of this study is on the impact of board attributes, risk management committee structure and risk management practice and disclosure, on the performance of listed financial service firms in Nigeria.

As a review, this study has four objectives that include: (1) To determine the extent of disclosure of risk management practice by the listed financial service firms in Nigeria; (2) To ascertain the relationship between board attributes (board size, board composition, board meetings, CEO tenure, and board expertise) and performance of listed financial service firms in Nigeria; (3) To assess the relationship between risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meetings) and performance of listed financial service firms in Nigeria; and (4) To examine the relationship between risk management practices and disclosure and performance of listed financial service firms in Nigeria. Moreover, three groups of hypotheses were developed to examine the effect of CG mechanisms on firm performance. The first group with fifteen hypotheses

investigated the relationship between board attributes and firm performance. The second group with nine hypotheses examined the relationship between risk management committee structure and firm performance. While the third group with three hypotheses focused on the relationship between risk management practice and disclosure and firm performance.

In side by side with the stated objectives of the study, this study puts on board to provide empirical answers to four major research questions that are restated as thus: (1) What is the extent of disclosure of risk management practice by listed financial service firms in Nigeria? (2) What is the relationship between board attributes (board size, board composition, board meetings, CEO tenure, and board expertise) and performance of listed financial service firms in Nigeria? (3) What is the relationship between risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meetings) with the performance of listed financial service firms in Nigeria? (4) What is the relationship between risk management practice and disclosure and performance of listed financial service firms in Nigeria?

For the research question one in this study, descriptive and univariate analyses were conducted to offer an empirical answer. The first descriptive result for the full sample shows that risk management practice and disclosure (RMPD) has a mean value of 5.31, which indicates that the disclosure of risk management practice in Nigeria is strong since 5.31 falls within the rating of RMPD intensity as; ‘strong disclosure’. Further, when the sample was divided into banks and nonbanks, the finding on RMPD remains consistency as the mean values for RMPD are 5.51 and 5.21 for banks and nonbanks respectively,

which indicates a strong disclosure of risk management practices in the Nigerian financial service firms. On a yearly basis (2012 to 2016), the result is not that different from the full sample, only that in the year 2012 (take-off year of implementing disclosure of RMPD) the mean value being 4.20, indicating that there was a moderate disclosure of risk management practice. In years 2013 to 2016, the mean values are 5.27, 5.33, 6.24, and 5.49 respectively, signifying that there was a strong disclosure of risk management practice by the listed financial service firm in Nigeria.

Consistently, the second descriptive statistics result (frequency distribution) of RMPD intensity shows that there is a very strong disclosure of risk management practice by listed financial service firms in Nigeria. In summary, moderate disclosure has 21.78%, strong disclosure has 62.22%, and very strong disclosure has a score of 16%. In total, strong disclosure has a score of 78.22% (62.22+16), demonstrating that listed financial service firms in Nigeria have strongly disclosed information of their risk and management practices. However, considering the univariate analysis (t-test), the result shows that there is no significant difference in risk management practice and disclosure (RMPD) between banks and nonbanks financial service companies in Nigeria. Therefore, this indicates that the requirement of the 2011 revised CG code is highly accepted and considered by the listed financial service firm in Nigeria.

In answering the second research question in this study, the regression results show that both collectively and singularly, board attribute variables influence the performance of listed financial service firms in Nigeria in all the three models (ROA, ROE, and MTB). The regression results showed the goodness of fit in all the estimations of board attribute variables on all the three performance measurements (ROA, ROE, and MTB).

Collectively, hypothesis  $H_1$  (a, b, and c) is supported because board size (BSZ) has a significant positive effect on performance (all the three models), which is line with the expectation of agency theory. This portrays that larger board size leads to better firm performance. This result might be due to the fact that larger board size may increases the board effectiveness in terms of skills and experience, and with a bunch of ideas that can provide an improved performance.

Hypothesis  $H_2$  (a, b, and c) is partially supported because board composition (BCOMP) has significant, but negative effect on all the three performance measurements (ROA, ROE, and MTB). This result is contrary to the expectation of agency theory which argues that the involvement of non-executive directors in overseeing managers' activities may help to reduce agency costs and enhances performance. Specifically, the reason for this significant negative effect may be due to the reason that outside directors have no adequate time, knowledge and skills to perform the functions required of them effectively since they are not involved in the day-to-day running of the business.

Board meeting (BMT) was found to be significant, positively related to ROA and MTB, and negatively related to ROE. Therefore, hypothesis  $H_3$  (a, b, and c) is not supported. This has also moved in opposite direction with agency theory. The reason for this result might be that the limited time the directors have to spend together is not usually utilized for brainstorming among themselves. More so, most agendas of board meetings are set by the CEOs and other directors could not spare extra productive time to control over the management and spent most of their times on routine issues which limit vital opportunities to the directors. The tenure for the chief executive officer (CEOT) was found have significant positive effect on performance (ROA, and ROE), while

insignificant on MTB. Collectively, this result has supported hypothesis  $H_4$  (a and b). the result has also concords with the assumptions of agency and resource dependence theories which state that the longer tenured CEO is deemed to understand the economic environment better, and hence, helps to boost the efficiency and performance of a firm. The justification for this result might be due to high dedication be the CEOs in discharging their responsibility as agents of the shareholders. In addition, it might be that the CEOs have shares in the ownership structure of their companies. This will make them perform effectively since they know that they have a stake (investments) in the company they are serving. Hence, the reason for better performance.

The last variable for board attribute is board expertise (BEXP), which was found to have a significant, but negative impact on firm performance (ROA, ROE, and MTB). As a result, hypothesis  $H_5$  (a, b, and c) is partially supported. This result has contradicted the assumption of resource dependence theory which argues that directors serving on boards of several companies will have more experience and become beneficial to the success of organizations. The reason for this outcome might be that directors will multiple directorships will be busy with discharging their responsibilities in other firms, consequently consuming much of their time that will stop them from discharging their duties effectively.

For the third research question, the result indicates that one of the risk management structure variables shows a significant negative association with performance, another one shows a positive, but insignificant effect on performance, while the third variable shows a significant positive effect on performance. Precisely, risk management committee size (RMCS) was found to have a significant negative influence on

performance (ROA, ROE, and ROE). In light of this, hypothesis  $H_6$  (a, b, and c) is partially supported. The reason for this may stem from high administrative costs expended by the companies in running the affairs of members of the committee since it is believed that larger number of every board members are associated with a high administrative cost that diminishes a firm's profitability. Moreover, it might be due to lack of experience of the committee members of the nature of the risk involved, or due to a shady understanding of uncertainties surrounding the business environment.

However, risk management committee composition (RMCC) was found to have a positive, but insignificant effect on all the three performance measurements in this study. For this reason, hypothesis  $H_7$ (a, b, and c) is not supported. This outcome might be due to absence of actual independence of the board which might have been hindered by a powerful CEO, lack of adequate experience and skill to tackle environmental uncertainties, mismatch of committee members, and composition of older and/or less effective or productive individuals, lack of effective communication flow from top management to committee members or between members. On the other hand, risk management committee meeting (RMCM) was found to be positive and significantly associated with performance (ROA, ROE, and MTB), hence hypothesis  $H_8$  (a, b, and c) is supported. The reason behind this result might be that various number of meetings were held during the period under review as evidenced in the descriptive statistics result, since the Nigerian business environment became volatile due several reasons like, recession, change in government monetary policy, recession, and social unrest due the activities of the dreaded group 'boko-haram'.

For the fourth research question that involves only one independent variable, the result indicates that risk management practice and disclosure was found to have a significant negative effect on performance (ROA and MTB), and insignificant negative effect on MTB. Together, hypothesis  $H_9$  (a, b, and c) is partially supported. The reason for this result might be due to high administrative costs attached to information disclosure related to risk management practice by the companies which are expected to generate a positive return might not be commensurate to the returns if the users of such information do not use it for the purpose expected. Moreover, lack of proper utilization of the disclosed information by the investors may lead to a negative or insignificant impact on a company's returns.

### 5.3 Implications of the Study Findings

There is stream of studies that relate corporate governance mechanisms with firm performance in various economic environments (for instance, Abdul-Qadir & Kwanbo, 2012; Abdulla, & Smith, 2015; Abraham & Shrive, 2014; Afrifa & Tauringana, 2015; Al-Matari *et al.*, 2014a; Amran *et al.*, 2008; Arora & Sharma; 2016; Arouri *et al.*, 2014; Buckby *et al.*, 2015; Chechet Jnr., & Akanet, 2013; Dabarin & Saidin, 2015; Elyasiani & Zhang, 2015; Fauzi & Locke, 2012; Gill *et al.*, 2012; Guest, 2009; Joe *et al.*, 2011; Liang *et al.*, 2013; Marn & Romuald, 2012; Vafeas, 1999; Wong, 2012). However, despite the stream of studies conducted on CG mechanisms and firm performance, yet, there is inconsistency in their findings and there is an absence of empirical evidence on the relationship between risk management structure, risk management practice and firm performance especially in an emerging economy like Nigeria.

Therefore, this study fills this vacuum by examining the relationship between corporate governance mechanisms (board characteristics, risk management committee structure, and risk management practice and disclosure) and performance of listed financial service firms in Nigeria from 2012 to 2016. Based on the presented findings in the foregoing section, the implication of this study to theory, to practice, to various companies' stakeholders, and its implication to the academia are presented in the coming sections.

### **5.3.1 Implication of the Findings to Theory**

Past studies relate corporate governance mechanisms with firm performance supporting from the agency theory perspective (Denis & McConnell, 2003; Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976; Shleifer & Vishny, 1986) and resource dependence theory (Boyd, 1990; Hillman *et al.*, 2009; Hillman & Dalziel, 2003; Johnson & Greening, 1999; Nicholson & Kiel, 2003; Pfeffer & Salancik, 1978; Sing *et al.*, 1986; Williams, 1984), yet, the theories are not without contra position.

Firstly, the result of this study indicates that the size of the board of directors influences the performance of quoted financial service firms in Nigeria. This corroborates with agency theory that a larger board size ensures an effective and efficient monitoring of management which reduces the power of the CEO on corporate board of directors, and therefore enhances firm performance (Fama & Jensen, 1983; Singh & Harianto, 1989; Zahra & Pearce, 1989). By the same token, this result has supported resource dependence theory that a larger board size leads to diversity that would assist corporations to safeguard their resources and lessen uncertainties in environments,

enhance directors' oversight function, and guarantee effective decisions by management (de Villiers *et al.*, 2011; Hillman & Dalziel, 2003; Kiel & Nicholson, 2003; Pearce & Zahra, 1992; Pfeffer, 1987). Consequently, both agency theory and resource dependence theory are supported by the finding of this study in regards to the board of directors' size in the Nigerian environment.

Secondly, the result of this study shows an insignificant negative effect of board composition on firm performance. This does not support the postulates of agency theory that nonexecutive directors are effective overseers of managerial activities (Fama & Jensen, 1983), and that a corporate board that is dominated by a large number of nonexecutive directors are in a better position to operate in the best interest of shareholders, and improve firm performance via effective oversight functions on the management (Hermalin & Weisbach, 1988). Therefore, this result could be a signification that might have been influenced by the managerial power within the board, meaning that the board is dominated by a powerful CEO. In like manner, nonexecutive directors (who do not have the requisite skill and experience) might have been appointed based on political or social affiliations to serve on the board, hence, resulting in negative impact on the practices of CG and performance due to the absence of cooperation and effective communication. Explicitly, agency theory regarding board composition is not supported in Nigerian environment and specifically in listed financial service firms.

Thirdly, the outcome of this study portrays that board meeting (BMT) has an insignificant effect on firm performance. This result does not support agency theory which highlights that corporate board of directors exhibit significant abilities in terms of counselling, penalizing, and overseeing management actions, hence enhancing the

performance of firms where there is a higher frequency of board meetings. However, the result of this study reveals that CEO tenure has a significant positive influence on firm performance. Therefore, this result is consistent with both agency theory and resource dependence theory which presume that a longer tenured CEO is deemed to understand the economic environment better, and hence, aids to boost the efficiency and performance of the firm. The support for this theory in Nigeria might be due to the volatile nature of the Nigerian business environment, which requires an experienced and skilful manager that knows about the uncertainties surrounding the economic setting.

Markedly, the result of this study delineates that board expertise does not positively influence the performance of listed financial service firms as expected by the postulation of resource dependence theory. In this effect, resource dependence theory which argues that directors holding multiple positions (board expertise) on several boards rely on external resources with the view to assist in enhancing firm performance (Kiel & Nicholson, 2003), is not supported. This result may emanate from lack of understanding by the directors with multiple directorships on how the business of the company is been operated since a director with multiple directorships will be busy trying to fulfill his/her obligations and commitments with the boards of various companies, it may, therefore, become difficult to have full understanding of how various companies operate especially if they are not within the same industry. In addition, it might be due to the failure of the boards to appoint directors with the right mix of skill and competencies to deliver what is required of them by the investors or inability of the directors to personally identify and address issues on the board's competencies and ways to maintain and enhance it. In response to this, resource dependence theory is not supported in the Nigerian environment in relation to board expertise of listed financial service firm in Nigeria.

For the risk management committee structure, the result of this study shows that it is in support of agency theory since risk management committee meeting has a significant positive influence on firm performance. Agency theory postulates that the more regularity of board meetings, the more likely of an organization to obtain high performance because board meetings attendance is the basic medium via which board of directors obtained vital information needed to carry out their functions. Consequently, agency theory is supported in the Nigerian environment regarding risk management committee meetings of quoted financial service firms in Nigeria. Nevertheless, risk management committee size (RMCS) and risk management committee composition (RMCC) do not support agency theory and resource dependence theory because *RMCS* has significant negative effect on performance, while *RMCC* has an insignificant positive effect on performance.

Equally important, the result of this study shows that risk management practice and disclosure has a significant effect on firm performance. This result is contrary to the postulation of agency theory that disclosure of information on corporate risk reduces monitoring costs (Hemrit & Arab, 2011), which ensures that information is provided in the annual reports of companies (Depoers, 2000). The disclosure of corporate information enables investors to make various decisions on a company. Even though there is strong disclosure of risk management practice of listed financial service firm in Nigeria, yet, the result does not support agency theory in terms of its influence on performance. The reason behind this result might be due to the excessive administrative costs associated with production and disclosing of important information in their annual reports. And lack of judicious utilization of such information may have a negative impact on the company in terms of performance.

More importantly, this study contributes to the corporate governance and firm performance theories (agency and resource dependence) by describing board size, CEO tenure, and risk management committee meeting as significant mechanisms of corporate governance for ameliorating the agency of conflict between the corporate managers and shareholders and for provision of good understanding of environmental uncertainties, which will help in reducing agency and administrative costs, and ultimately influences performance of firms. Therefore, the utilization of agency theory and resource dependence theory in relating corporate governance mechanisms and firm performance cannot be overlooked.

### **5.3.2 Implication of the Findings to Practice**

The results of this study have immense importance to regulators, shareholders, corporate managers, and the general public. The regulatory authorities in Nigeria are saddled with the responsibility of ensuring adequate compliance to effective CG practice by publicly traded companies. The Securities and Exchange Commission (SEC) and friendly regulatory authorities in Nigeria will find the results of this study indispensable in developing new or updating the existing CG regulatory reforms and firm performance issues. For instance, the result of this study shows that board composition has significant negative effect on firm performance, and this is not supported by the corporate governance code in Nigeria. This depicts that despite the number of outside directors on the boards of listed financial service firms, yet, there is no evidence of the outside directors dominating the boards since they have no significant positive effect on performance. Moreover, it can be argued that outside directors do not bring their experience to the betterment of the companies' returns as expected or might have

dominated by the CEOs. Therefore, there is a need by the regulatory authorities concerned to appraise the behaviour and actions of the outside directors on various boards to matters relating to performance and examine the possible reason(s) hindering their independence in making decisions that may enhance firms' performance.

The frequency of board meeting displays insignificant relationship with the performance of listed financial service firms in Nigeria. The implication of this result is that the performance of the sample firms does not depend on the frequency of meetings they held during an accounting period. This means that the board may be busy discussion other issues which are not beneficial to the progress of the firm. For this reason, authorities concerned need to scrutinized as to the possible reasons why the frequency of board meetings remained incommensurate to firm performance. A better understanding of this could aid in future CG reforms in Nigerian environment.

In the same vein, the result of this study does not support the presence of directors with multiple directorships (busy directors) on the board of listed financial service firms in Nigeria since the outcome shows a negative association between board expertise and performance. The busy directors who are highly paid by firms, may not have the required time to effectively discharge their full responsibilities since they will be busy with the affairs of several boards. Consequently, regulatory authorities should inquire into the attitudes and performance of busy directors, identify other possible reasons for their insignificant effect on performance, and make reviews on the CG reform that could tackle the matter.

Risk management committee size is significant and negatively associated with firm performance. The size of risk management committee does not show any evidence of their magnitude in improving the performance of listed financial service firms in Nigeria. The size of the committee might be cost consuming since the mean of *RMCS* is 5 and a maximum of 14 members. This size might be a mere number of individuals with no knowledge and skill to tackle environmental risks and uncertainties surrounding the business. In this respect, there is a need to further examine as to the reason(s) for the negative impact of risk management committee size on performance, and devise any means if possible to overcome the issue since the revised CG code is at its rudimentary level.

Relatively, the finding of this study indicates that risk management committee composition is not significantly related to firm performance. The nonexecutive directors have not shown any evidence of their presence on the boards in bettering the performance of listed financial service firms in Nigeria. This may result from mismatched of committee members, ineffective communication flow from top management to committee members, and unskillful and inexperienced members who might have appointed to the board based on their political or social affiliations. The concerned regulatory authorities in Nigeria should further investigate why the composition of risk management committee remain ineffective in enhancing performance. An understanding of this could assist the authorities concerned to further know the real appointed criteria for committee members and could know the attitude of nonexecutive directors within the committee. This could ultimately help in the future CG reforms in Nigeria.

The finding of this study signifies that risk management practice and disclosure is associated with poor firm performance. This indicates that disclosures of risk management practices by the listed financial service firms in Nigeria have no any favorable influence on their performances. This may be due to the high cost associated with information disclosure, underutilization of the information disclosed, and high relatively time required to understand the content of the information disclosed. There is a need to further investigate by the regulatory authorities into the cause of this negative effect of risk management practice and disclosure on firm performance. Because this result has gone against the expectation of the revised code that disclosure of risk management practice may improve performance. Therefore, the regulatory authorities should if possible investigate the process of information disclosure on risk management practice from the firm to the ultimate users, so that if necessary, reviews to the revised CG code can be made effectively.

Generally, the result of this study has provided immense information to the relevant authorities to effective corporate governance practice in Nigeria. The information is about the effectiveness of board attributes, risk management committee structure, and risk management practices and disclosure, and the performance of listed financial service firms in Nigeria. By this, the authorities concerned will know the effectiveness of the 2011 revised CG code as well as the extent of its application by Nigerian listed firms, which may serve as a basis for evaluation and review of future corporate governance reforms in Nigeria.

### **5.3.3 Implication of the Findings to Various Company Stakeholders**

The findings of this study could be of significant relevance to the decisions of various companies' stakeholders that include; shareholders, corporate managers, and the general public (financial analysts, potential investors etc.). The significant negative effect of board composition and board expertise and the insignificant effect of board meetings on performance portrays an unresponsive attitude of the non-executive directors, the executive directors, and multiple directorships toward firm performance. Therefore, this result provides the shareholders with a vital information on the relevance of non-executive directors on the boards of their companies especially on mitigating the conflict of interest between corporate managers and shareholders. With this result, the shareholders are also in a better position to know how is the frequent meetings of the board is affecting their expectations, despite the huge amounts of money that companies usually spend during board meetings. This will enable them (shareholders) to take proactive measures in dealing with board meeting issues.

Equally, the shareholders will find the result of this study indispensable in knowing the usefulness of risk management committee size, risk management committee composition, and risk management practice and disclosure, since they are at their rudimentary stage and have portrayed a significant negative effect as well as the insignificant effect on their firms' performances. Hence, the information will assist them (shareholders) in having more understanding of the effectiveness of their compliance to the 2011 revised code of corporate governance as well attending issues relating to it (corporate governance).

To corporate managers, the findings of this study will assist them in knowing the relationship between the board attributes variables, risk management committee structure variables, risk management practice and disclosure and firm performance. This will help the management in performance evaluation of their activities toward achieving the predetermined objectives of their firms. In other respects, this study contributes to the general public, especially financial analysts and investors. To the financial analysts, whose activities are mostly utilized by potential investors, will employ the results of this study to appraise the level of performance and that of corporate governance effectiveness in the Nigerian financial institutions. Moreover, the information on the intensity of disclosure on risk management practices of the listed financial service firms in Nigerian and how it is related to performance will serve as a basis for gauging a more transparent company, and as a yardstick for investment decisions by potential investors.

#### **5.3.4 Implication of the Findings to Academia**

The findings of this study are of paramount importance to the academic community by adding value to the existing literature. In this sense, the study has provided important information to the literature by examining the relationship between corporate governance mechanisms and performance in the Nigerian financial institutions. Thus, information on the nature of Nigerian market as well as the effectiveness of its (Nigerian) corporate governance practice can be easily obtained. Furthermore, since this study examines the relationship between corporate governance mechanisms, by specifically contributing to the relationship between risk management committee structure and risk management practice and disclosure with firm performance, it therefore serves as a pace for future similar studies, especially in the Nigerian Financial

Service firms or other listed companies in Nigeria and beyond. For this reason, the finding of this study is an added value to the academic communities and will function as a reference material and a basis for future scholars intending to explore the relationship between board attributes, risk management structure, risk management practice and disclosure and firm performance especially regarding financial institutions.

#### **5.4 Limitation of the Study**

Despite the contributions made by this study in establishing a relationship between board attributes, risk management committee structure, risk management practice and disclosure and firm performance in the Nigerian financial service firms, yet, the study has some limitations associated with it. First, in terms of domain, the study only dwells on the listed financial service firms while ignoring other sectors that are playing a significant role in the growth and development of the Nigerian economy. Thereupon, generalizing the result of this study may be difficult since the effectiveness of the 2011 revised CG code especially on risk management structure and risk management practice and disclosure are yet to be explored on other quoted nonfinancial firms in Nigeria. In like manner, generalizing this result in other African economies may be complicated due to the existing disparities in socioeconomic characteristics, CG codes, political settings, company laws, and other legislations that may affect a company's operations and performance.

Additionally, this study considers only CEO tenure among the various characteristics of the CEO that include; CEO duality, the age of the CEO, CEO ownership, educational qualifications and social ties, which have been documented to have an influence on the

performance of firms. Besides, no attempt has been made by this study to examine the activities of the board of directors during their meetings which have been reported to have an influence on company performance (Zahra & Pearce, 1989). Although, information on board meeting activities was not provided in the annual reports of the sampled companies in this study. Moreover, this study has failed to scan into other features of risk management committee composition like; financial expert in the committee, educational level of committee members, and professional affiliations of members of the committee which may be as determinants of the committee functions that may ultimately influence performance.

This study concentrates only on the disclosures of risk management practices without elaborating on the different available types of risk (for instance., market risk, liquidity risk, credit risk etc.), which may influence the performance of firms. Further, this study fails to establish the relationship between board attributes and disclosures of risk management practices, since it has been documented that board characteristics affect firm's disclosure (J.F. Solomon *et al.*, 2000; Pantamee, 2014). Also, this study collected data from annual reports which were primarily produced not for the researcher's purpose, but to fulfil the requirements of the law and various company stakeholders. As such, the data may have suffered from subjectivity from the preparers of the companies' annual reports.

## **5.5 Suggestions for Future Research**

It has been established that this study has contributed a lot to theory, to practice, to various companies' stakeholders, and to academic communities, yet, suffers from some

setbacks. Therefore, based on the identified flaws, this study has made some suggestions for future research in this promising area of academic endeavor. First, future research can replicate this study by examining the effect of board attributes, risk management committee structure, risk management practice and disclosure and firm performance in other sectors and /or other environments. This will assist in comparing the result of this study with the findings of similar studies, which could help generalization of the current study findings.

At the same time, future studies can also extend this study by adding variables of CEO characteristics such as; CEO age, CEO ownership, CEO educational qualification and social ties and relate them with performance. In the same line, future studies can explore other features of risk management committee composition like; financial expertise, educational level, and professional affiliations of the committee members. More so, the relationship between board attributes variables and risk management practice and disclosure can be established by future research since it has been reported that board characteristics influence corporate disclosure. Finally, similar future studies can establish a relationship between the different types of risk like; market risk, liquidity risk, credit risk, etc. and performance of firms.

## **5.6 Conclusion**

It is evidenced that there is a stream of studies on corporate governance mechanisms and firm performance from different economies (developed and emerging). However, the majority of these researches were conducted in the developed countries like the UK, US and France who have a standard system of capital market, the legal system, and

developed political environment. Although, there are also studies on corporate governance in other continents like Asia, Mediterranean, and Africa, not as much as those from the developed nations. Nevertheless, these studies pay less attention in establishing a relationship between risk management structure, risk management practice and disclosure and firm performance. Therefore, this study extends prior studies on CG mechanisms and performance by examining the relationship between board attributes (board size, board composition, board meeting, CEO tenure, and board expertise), risk management committee structure (risk management committee size, risk management committee composition, and risk management committee meeting), risk management practice and disclosure and performance of listed financial service firms in Nigeria spanning from year 2012 to 2016.

The outcome of this study has provided evidence that board attributes have significant positive, significant negative, and insignificant (positive to negative) relationship with firm performance. As an example, the result displayed a significant positive relationship between board size with CEO tenure and firm performance. While board composition and board expertise showed a significant negative relationship with firm performance. Whereas, board meeting shows an insignificant positive effect on ROA and MTB and insignificant negative effect on ROE. This means that board attributes have mixed effect on the performance of listed financial service firms in Nigeria.

The result of risk management structure shows that risk management committee meeting has significant positive effect, risk management committee composition has an insignificant positive effect, while risk management committee size has significant negative effect on the performance of listed financial service firms in Nigeria. Likewise,

the result of this study has shown that risk management practice and disclosure has significant negative effect on firm performance regardless of the strong disclosure intensity of risk management practices in Nigeria. Hence, this study has suggested that the regulatory authorities concerned in Nigeria should assess the behavior and actions of the outside directors on various boards to matters relating to performance, and examine the possible reason(s) hindering their independence in making decisions that may enhance firms' performance, as it will augment their (directors) roles on the board.

Supplementary to the foregoing, the study also recommends that the regulatory authorities in Nigeria should inquire into the attitudes and performance of busy directors, identify other possible reasons for their insignificant effect on performance, and make reviews on the CG reforms that could tackle the matter. Relatively, the study also suggested that further inquiry as to why the composition of risk management committee remains ineffective in enhancing performance should be carried out by the regulatory authorities to the effectiveness of CG reforms in Nigeria. Further, the study suggested that the regulatory authorities should if possible investigate the process of information disclosure on risk management practice from the firm to the ultimate users so that if necessary, reviews to the NCCG 2011 can be made effectively.

On a final note, the finding of this study indicates that there is an improvement in the performance of financial service firms in Nigeria due to the improvement in the application of corporate governance practice especially on the board attributes, risk management committee structure, and disclosures of risk management practices in the Nigerian financial institutions. This reveals that the NCCG 2011 has out-shined the erstwhile NCCG of 2003 which was believed to be surrounded with some setbacks that

lead to its revision in 2011. Despite the improvement of the NCCG 2011, the regulatory authorities to CG reforms in Nigeria should as a need, carry out performance evaluation on the application of the existing code, and make reviews on grey areas (for example, board meetings and risk management committee composition) that need to be upgraded especially in the Nigerian institutions.



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## APPENDICES

### Appendix I

**Table 3.1**

*Listed Financial Service Companies in Nigeria as at December, 2016.*

S/n	Company Name
1	Abbey Mortgage Bank Plc
2	Access Bank Plc.
3	Africa Prudential Registrars Plc
4	African Alliance Insurance Company Plc
5	AIICO Insurance Plc.
6	Aso Savings and Loans Plc
7	Axamansard Insurance Plc
8	Consolidated Hallmark Insurance Plc
9	Continental Reinsurance Plc
10	Cornerstone Insurance Company Plc.
11	Custodian and Allied Plc
12	Deap Capital Management & Trust Plc
13	Diamond Bank Plc
14	Ecobank Transnational Incorporated
15	Equity Assurance Plc.
16	Fbn Holdings Plc
17	Fcmb Group Plc.
18	Fidelity Bank Plc
19	Fortis Microfinance Bank Plc
20	Goldlink Insurance Plc
21	Great Nigerian Insurance Plc
22	Guaranty Trust Bank Plc.
23	Guinea Insurance Plc.
24	Infinity Trust Mortgage Bank Plc
25	International Energy Insurance Company Plc
26	Lasaco Assurance Plc.
27	Law Union and Rock Ins. Plc.
28	Linkage Assurance Plc
29	Mutual Benefits Assurance Plc.
30	N.E.M Insurance Co (Nig.) Plc.
31	Niger Insurance Co. Plc.
32	Nigeria Energy Sector Fund
33	Npf Microfinance Bank Plc
34	Omoluabi Savings and Loans Plc
35	Prestige Assurance Co. Plc.

Table 3.1 (Continued).....

- 36 Regency Alliance Insurance Company Plc
- 37 Resort Savings & Loans Plc
- 38 Royal Exchange Plc.
- 39 Sim Capital Alliance Value Fund
- 40 Skye Bank Plc
- 41 Sovereign Trust Insurance Plc
- 42 Stanbic Ibtc Holdings Plc
- 43 Standard Alliance Insurance Plc.
- 44 Standard Trust Assurance Plc
- 45 Sterling Bank Plc.
- 46 Unic Insurance Plc.
- 47 Union Bank Nig. Plc.
- 48 Union Homes Savings and Loans Plc.
- 49 United Bank for Africa Plc
- 50 Unity Bank Plc
- 51 Unity Kapital Assurance Plc
- 52 Universal Insurance Company Plc
- 53 Wapic Insurance Plc
- 54 Wema Bank Plc.
- 55 Zenith International Bank Plc

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Source: Nigerian Stock Exchange (2017), from: <http://www.nse.com.ng/>



## Appendix II

**Table 3.2**

*List of Sampled Firms in the Study (N=45)*

<b>Banks</b>		<b>Non-Banks</b>	
<b>S/N</b>	<b>S/N</b>	<b>S/N</b>	
1	Access Bank	1	Abbey Mortgage Bank
2	Diamond Bank Plc	2	African Alliance Ins. Plc
3	Ecobank Plc	3	Aiico Insurance Plc
4	First Bank Plc	4	Axamansard Insurance
5	Femb Plc	5	Consolidated Hallmark
6	Fidelity Bank Plc	6	Continental Reinsurance
7	Guaranty Trust Bank Plc	7	Cornerstone Insurance
8	Skye Bank Plc	8	Custodian & Allied Plc
9	Stanbic Ibtc Plc	9	Equity Assurance Plc
10	Sterling Bank Plc	10	Goldlink Insurance Plc
11	Union Bank Plc	11	Guinea Insurance Plc
12	UBA Plc	12	Infinity Trust Mortgage
13	Unity Bank Plc	13	International Energy Plc
14	Wema Bank Plc	14	Lasaco Assurance Plc
15	Zenith Bank Plc	15	Law Union & Rocks Ins. Plc
		16	Linkage Assurance Plc
		17	Mutual Benefits Assurance
		18	N.E.M Insurance Co. Plc
		19	Niger Insurance Plc
		20	NPF Microfinance Bank Plc
		21	Prestige Assurance Co. Plc
		22	Regency Alliance Ins. Plc
		23	Resort Savings & Loans Plc
		24	Royal Exchange Plc
		25	Sovereign Trust Insurance
		26	Standard Alliance Ins. Plc
		27	Standard Trust Assurance
		28	Unity Kapital Assurance Plc
		29	Universal Insurance Plc
		30	Wapic Insurance Plc

Source: Generated from Table 3.1

## Appendix III

### CODING BOOK

#### *Introduction*

This coding book is specifically designed for the collection of data via contents of audited accounts and reports of listed financial service firms for part of the research titled: *Board Attributes, Risk Management, and Firm Performance: An Analysis of Listed Financial Service Firms in Nigeria*. The research is being carried out by Mahmud Mohammed Kakanda, Tunku Puteri Intan Safinaz-School of Accounting (TISSA), Universiti Utara Malaysia. The data is related to the study objectives that aimed to: determine the extent risk management practice and disclosure; examine the relationship between risk management practice and disclosure and performance of listed financial service firms in Nigeria.

#### Instructions

- All the coders MUST study and understand this coding book very well before coding of the annual reports selected for this study.
- All coders MUST strictly follow the operationalized concepts and meanings contained in this book.
- All coders are urged to always refer to this book for clarification and general guide.
- After picking an annual report, the coder is expected to read through it meticulously to identify unit of the statement that answers the category then record it by ticking YES or NO in the coding sheet as applicable.
- Please use one code sheet for each annual report.

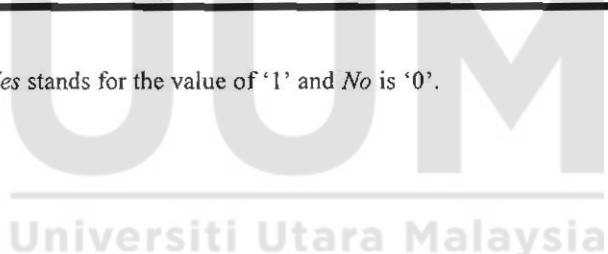
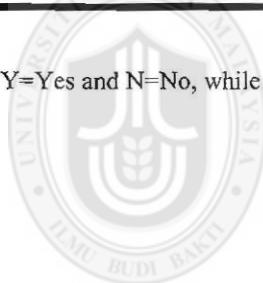
## Categories operationalization

ID	Categories	Operationalization
1	Coder ID	Write your ID as applicable. (Names, but can be initialized) e.g. MKs
2	Company ID	Record the company ID as applicable. Find in the list of companies in subsequent pages.
3	Annual report No.	The annual report number is determined in order of analysis within the coding work sheet assigned to each other.
4	Date (in year).	Record the date (in year) for each annual report being coded.
RMDC1	Governance structure related to risk management.	Record as YES where an annual report shows that there is availability of a risk management committee, if otherwise NO.
RMDC2	Risk management committee responsibility and function.	Record YES if there is availability of explanations on responsibilities and functions of risk management committee, if otherwise NO.
RMDC3	Description of risk management policies and objectives.	Record YES if there is availability of explanations to risk management policies and objectives of the firms, otherwise NO.
RMDC4	Audit committee responsibility and functions.	Record YES where explanations are available on audit committee structure and their responsibilities, and NO if otherwise.
RMDC5	Capital/Market risk disclosure.	Record YES where information is available regarding Interest rate, Exchange rate, Commodity (stocks), Liquidity, and Credit, otherwise NO.
RMDC6	Environmental risk disclosure.	Record YES for availability of information on Health & Safety (Injury & illness, harm & accidents), erosion of brand name, and corporate social responsibility (scholarship for students, building of schools, road, water boreholes etc.), otherwise NO.
RMDC7	Operational risk and other risks disclosure.	Record YES where information is available on customer satisfaction, product development, sourcing, product and service failure, stock obsolescence and shrinkage, otherwise NO.

### Coding Sheet

Coding sheet		Categories	Coding	
Categories ID			Y <input type="checkbox"/>	N <input type="checkbox"/>
1	Coder ID			
2	Company			
3	Annual Report No.			
4	Date (in year)			
<b>RMDC1</b>	Governance structure related to risk management	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC2</b>	Risk management committee responsibility and function	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC3</b>	Description of risk management policies and objectives	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC4</b>	Audit committee responsibility and functions	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC5</b>	Capital/Market risk disclosure	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC6</b>	Environmental risk disclosure	Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>RMDC7</b>	Operational risk and other risks disclosure	Y <input type="checkbox"/>	N <input type="checkbox"/>	

Note: Y=Yes and N=No, while Yes stands for the value of '1' and No is '0'.



## Appendix IV

### Frequency Tables for Risk Management Disclosure Categories (SPSS v.20 output)

#### Governance Struc. Related to Risk Mgt

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disclosure	225	100.0	100.0	100.0

#### Risk Mgt C'mtee Responsibility & Function

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disclosure	225	100.0	100.0	100.0

#### Description of Risk Mgt Policies & Obs

	Frequency	Percent	Valid Percent	Cumulative Percent
Disclosure	157	69.8	69.8	69.8
Valid No Disclosure	68	30.2	30.2	100.0
Total	225	100.0	100.0	

#### Audit C'mtee Responsibility & Function

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disclosure	225	100.0	100.0	100.0

**Capital/Market Risk Disclosure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disclosure	148	65.8	65.8	65.8
	No Disclosure	77	34.2	34.2	100.0
	Total	225	100.0	100.0	

**Environmental Risk Disclosure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disclosure	110	48.9	48.9	48.9
	No Disclosure	115	51.1	51.1	100.0
	Total	225	100.0	100.0	

**Operational Risk & Other Risks Disclosure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disclosure	104	46.2	46.2	46.2
	No Disclosure	121	53.8	53.8	100.0
	Total	225	100.0	100.0	

**Risk Management Disclosure**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	36	16.0	16.0
	6	66	29.3	45.3
	5	74	32.9	78.2
	4	29	12.9	91.1
	3	20	8.9	100.0
	Total	225	100.0	100.0



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