CORPORATE GOVERNANCE MECHANISMS AND THE PERFORMANCE OF NIGERIAN QUOTED COMPANIES

Ovbiebo Ernest Osemwengie* Ukori Caroline Awele Vincent Afure Akpotor*****

**Department of Accounting Faculty of Management Sciences University of Benin Edo State, Benin City enerst4u@gmail.com 08056636031, 08144831074*

***Department of Accounting Faculty of Management Sciences Igbinedion University, Okada Edo State, Benin City mrsukori@gmail.com 08035541813*

****Department of Accounting, Banking and Finance Faculty of Management and Social Sciences Micheal and Cecilia Ibru University Agbarha-Otor, Delta State B.Sc. MBF vincentafure@mciu.edu.ng 08022108841, 08107021365*

ABSTRACT

The broad objective of this study is to investigate the effect of corporate governance mechanisms on the performance of Nigerian quoted companies. Secondary data was used for the study. The data was sourced from the annual reports of companies listed in the NSE. The study adopted the ordinary least square regression technique. The findings suggest that board characteristics have a negative impact, while audit committee characteristics have a positive impact on firm performance. The study recommends that the maximum board size should be specified, the maximum number of meetings should also be specified and the audit committee size should be an optimum number to enable them carry out their duties effectively.

Keyword: ***Board size, board independence, frequency of board meeting, audit committee size, audit committee financial expertise, audit committee meeting, audit committee independence and firm performance.***

Introduction

The business world has experienced many changes in this ever changing and dynamic environment. Several unexpected events have taken place in recent times, which have made it mandatory for the business world to devise better ways in ensuring better stability in form of going concern and consistent growth of the business. One of such devices is the provision of codes of corporate governance to regulate activities and decisions on corporate affairs.

Researchers have managed to come up with many definitions of corporate governance. Strine (2010) pointed out that corporate governance is about putting in place the structure, processes and mechanisms that ensure that the firm is directed and managed in a way that enhances long-term shareholder value through accountability of the manager, which in turn enhances firm performance. Thus, corporate governance is intended to increase the accountability, credibility, integrity, and transparency of a firm and avoid massive disasters before they occur.

In developed and developing countries, corporate governance is of major concern not only to business enterprises, but also to regulatory bodies and government (Momoh & Ukpong, 2013). Financial sector has seen the importance of having good corporate governance practices (Kolk & Pinkse, 2010). International financial corporation (2004) opined that well governed firms tend to have better and

cheaper access to capital and tend to outperform their poorly governed peers over the long term. Still, Inam (2006) asserted that lapses in governance results in corporate failures. Corporate governance is thus particularly important owing to the increase of reported case of fraud, malpractices, insider trading, agency conflicts, technical incompetence of the board, cooking, and window dressing of books of accounts among other corporation saga (Enobakhare, 2010).

When corporate challenges around the world brought the issue of corporate governance to limelight, Nigeria joined other nations in formulating and issuing governance codes to address issues neither specifically nor insufficiently addressed by the previous legislation. Nigeria's foremost corporate governance code can be traced to the code of corporate governance for banks and other financial institutions in Nigeria which was issued by the banker's committee in august 2003 (Denmaki, 2011; Komolafe, 2007). The major weakness of this code was the fact that it was issued by a voluntary association of the chief executives of banks; hence had little impact. This code was followed closely by the code of best practices on corporate governance, issued by the Securities and Exchange Commission in 2003 (Okene, Chinwo & Ikeh, 2010).

The 2003 SEC code was reviewed in 2008 to address its loopholes and weaknesses and improve the mechanism for its enforceability. The 2003 SEC code was thereby replaced by the 2011 SEC code of corporate governance. This amended code is to help identify weaknesses and gaps associated with corporate governance and recommend ways of effecting greater compliance and to advice on other issues that are relevant to performing good corporate governance practices by public companies in Nigeria and for aligning it with international best practices.

Today's world has seen that organization transparency, financial disclosure, independency, board size, board composition, board committee and others are the cornerstone of good governance practices (Shungu, Ngirande & Ndlovu, 2014). This implies that the board of directors and audit committee has a significant role to play in ensuring good corporate governance.

Effective corporate governance practices are essential for long-term corporate success owing to the fact that it promotes improved shareholders wealth and other stakeholders (Momoh & Ukpong, 2013).

The main objective of the 2011 SEC code of corporate governance is to ensure high standards of transparency, accountability, and good corporate governance without unduly inhibiting enterprise and innovation. Because of the dynamic corporate environment, though, the current regulatory framework will need to be continuously reviewed to seek further improvement to corporate governance for better firm performance (Awan & Akhtar, 2014).

Despite the multiplicity of codes of corporate governance in Nigeria (Idornigie, 2010), fraudulent practices still pervaded the corporate environment causing stakeholders to lose confidence in the credibility of audited financial statement. A series of events have placed corporate governance issues as a top concern for both the international and local business community. In the international community, for example, there is the collapse of the energy corporation, Enron in 2001, World com in 2002, Equitable life assurance society in 2000 (Momoh & Ukpong, 2013). These companies filed for bankruptcy after adjusting their accounts. Some cases in Nigeria includes Cadbury Nigeria plc. in 2013 (Awan & Akhtar, 2014), Oceanic and Intercontinental banks in 2011 among others where window dressing of accounts was a practice.

These corporate failures emphasized the need for an extensive review of the existing corporate governance codes. Thus, the birth of the 2011 SEC code to eliminate the problem associated with corporate governance, fill out the gaps in the previous codes, and ensure compliance by management.

Corporate governance mechanisms and their impact on firm performance are widely studied in literature (Love, 2011). This study seeks to examine the impact of corporate governance mechanisms on firm performance in the post 2011 SEC code era; to determine if its positive (Peter & Bagshaw, 2014) or negative (Kajola, 2008). The following research questions are put forward.

1. How does board size affect firm performance?
2. Does board independence relate to firm performance?
3. How does frequency of board meeting affect firm performance?
4. How does audit committee size affect firm performance?
5. What relationship has audit committee financial expertise on firm performance?
6. How does audit committee meeting affect firm performance?
7. What impact does audit committee independence have on firm performance?

Objectives of the Study

The main objective of this study is to examine corporate governance mechanisms and firm performance in the post 2011 SEC code era. However, the specific objectives are to;

1. Find out how board size significantly impacts on firm performance;
2. Examine if board independence significantly impacts on firm performance;
3. Investigate the effect of board meeting frequency on firm performance;
4. Identify the impact of audit committee size on firm performance;
5. Identify the effect of audit committee financial expertise on firm performance;
6. Determine the impact of audit committee meeting on firm performance; and
7. Find out whether audit committee independence significantly affects firm performance.

Research Hypotheses

The hypotheses are stated in their null form.

H_{01}: Board size has no significant impact on firm performance.

H_{02}: Board independence has no significant impact on firm performance.

H_{03}: Board meeting frequency has no significant impact on firm performance.

H_{04}: Audit committee size has no significant impact on firm performance.

H_{05}: Audit committee financial expertise has no significant impact on firm performance.

H_{06}: Audit committee meeting has no significant impact on firm performance.

H_{07}: Audit committee independence has no significant impact on firm performance.

Literature Review

In this section, we shall examine extant literature to identify the relationship between board and audit committee characteristic and firm performance. Specifically, the corporate governance mechanisms

examined are board size, board independence, board meeting, audit committee size, audit committee financial expertise, audit committee meeting and audit committee independence.

Conceptual Framework

Corporate governance

Corporate governance plays an important role in improving the value of the firm and there is a direct relationship between the two (Black, 2002; Klapper & Love, 2004; Gompers, Ishii & Metrick, 2003). It is equally argued that firm performance is dependent on corporate governance practices. Firm performance refers to the results of activities of a firm or investments over a period of time (Bamey, 2012; Velnampy & Aloy, 2012). Accounting based measure of performance; return on assets will be used as a measure of firm performance in this study.

Return on assets

Return on assets is an indicator of how profitable a company is relative to its total assets. It is calculated by dividing a company's net income by its total assets. Return on assets tells a firm what earnings were generated from invested capital (assets). Return on assets for public companies can vary substantially and will be highly dependent on the industry. Return on assets figures gives investors an idea of how effectively the company is converting the money it has to invest into net income. The higher the return on assets number, the better; because the company is earning more money on less investment.

Firm performance

Firm performance is affected by and dependent on corporate governance mechanisms. Khatab, Masood, Zaman, Saleem and Saeed, (2011) defines corporate governance as a set of policies, procedures, laws and institutions influencing the way a corporation is managed. Corporate governance mechanisms adopted for the purpose of this study are board size, board independence, board meeting, audit committee size, audit committee financial expertise, audit committee meetings and audit committee independence.

Board size

Board size refers to the number of persons that make up the board of directors. Jensen (2008) unveils that directors in large boards have diverse opinions and consensus is difficult to reach and efficiency is lower. Nevertheless, Bacon (2007) holds an opinion that larger boards implies members with diverse background and view point which is helpful for the quality of decisions and this in the long run makes room for positive firm performance. Also, Patton (2009) reveals that board size is positively related to performance. The 2011 SEC code of corporate governance demands that the board size should not be less than five members. Notice there is no maximum or optimal size given. Yet it is generally agreed that size affects performance. Therefore, the need arises to study how board size may affect firm performance.

Board independence

Board independence is achieved by including disinterested parties, outside directors, on the board of directors. The 2011 SEC code describes an independent director as a non-executive director who is not a substantial shareholder of the company and not a representative of a shareholder with the ability

to control or influence management. The most fundamental notion in corporate governance is that the board of directors should be independent of management and the company (Hermanson, 2003). A number of studies have reported a positive role of having a higher proportion of independent non-executive directors sit on the board. The more independent a board is the more unbiased and qualitative their decisions are. This aids in achieving strategic goals and boost firm performance.

The 2011 SEC code of corporate governance also requires frequent board meetings, which is another corporate governance mechanism, to be held at least once every quarter. This is to enable effective performance of its oversight function and monitor management's performance. Every director is also required by the code to attend at least two-thirds of all board meetings.

The role of the audit committee, as a central facet in the execution of corporate governance, is continually evolving as a result of the passage of Sarbanes-oxley act of 2002. The audit committee is an operating sub-committee of the board of directors charged with oversight of financial reporting and disclosure. Their duties include overseeing the financial reporting and disclosure process; overseeing hiring, performance and independence of the external auditors. Although results of Klein, (2002) and Anderson, Mansi and Reeb, (2004) showed a strong association between audit committee and firm performance; Kajola (2008) found no significant relationship between both variables. The lack of consensus presents scope for deeper research on the impact of this corporate governance variable.

In their study, Mohiuddin and Karbhari, (2010) found that an audit committee that will influence corporate financial reporting positively and effectively carry out their agency duties must possess certain attributes such as independence, financial expertise, optimal size and number of meetings. These are in line with the revised 2011 SEC code. These are indicators or variables of that may form yardsticks by which audit committee can be measured in an organization.

Empirical Framework

Board Size and Firm Performance

Although Patton (2009) revealed that board size is positively related to corporate governance, most studies examining the relationship between board size and firm performance have affirmed that board size and financial performance are negatively correlated. The reason advanced for this is that as the size of a group increases, the problems of communication and co-ordination increases. The argument is that large boards would tend to be more diverse, more contentious, and more fragmented than small boards. On the other hand, Dalton and Darly (2000) used the Meta analysis technique, which showed a different result in that larger boards were associated with better corporate financial performance even when considering the nature of the firm and irrespective of how financial performance was measured.Similar findings were revealed by Andres and Vallelado (2008) that larger boards were more effective in monitoring and creating more value for the firm. The finding was also supported by a study conducted by Shukeri, Shin, and Shaari, (2012) who found that board size had a positive influence on firm's return on assets. However, Mak and Kusnadi (2005) reported that the value of the firms is positively correlated with small, as opposed to large boards. The argument is that large boards are less effective and the cost of co-ordination and processing problems is also high in large boards and this makes decision taking difficult. It must however be noted that the 2011 SEC code advocates a minimum board size of 5 person which makes it difficult to prove if the code advocates for small board size or big board size.

Board Independence and Firm Performance

Board independence can be achieved through the inclusion of independent directors to increase the board's ability to be more efficient. Proponents of the agency theory argue that independent directors may impair agency costs and improve firm performance. The proportion of independent directors in a company is used as a proxy for board independence, which is a measure of good corporate governance (black 2002). The 2011 SEC code of corporate governance refers an independent director as a director free of any relationship with the firm or its management that may impair the director's ability to make independent judgement. If outside directors are independent and have professional ability, they could be more objective to make decisions. According to Ghosh and Sirmans (2003), board independence depends in part on the extent to which the members are involved in other assignment. Findings reported by Haniffa and Hudaib (2006) and Rahman and Ali (2006), revealed that non-executive directors had no influence on firm performance. This could be because selection of independent directors in developing countries is not based on their expertise and experience, but more for political reasons, to legitimate business activities and contracts (Hannifa & Hudaib 2006). In contrast, a study conducted by Salleh, Iskandar and Rahmat (2005) found that a higher percentage of non-executives has created better auditing systems and improved financial reporting timeliness. Abidin, Kamal, and Jusoff (2009) found evidence that a higher proportion of independent non-executives directors on the board have a positive impact on firm performance based on value added intellectual co-efficient measurement. Huson, Parrino and Starks (2001) corroborates that the higher ratio of independent directors among members of the board, the better the performance of the firm could be. Other studies reveal a positive relationship between board independence and firm performance (Hayes, Mehran &Schaefer, 2004; Ghosh & Sirmans, 2003; Pass, 2004; and Lasfer, 2002). It is recommended that the best practice is to have a board of directors where independent non-executive directors make up at least one-third of the board membership (Securities & exchange commission code, 2011).

Board Meeting and Firm Performance

This refers to a formal meeting of the board of directors of an organization, held usually at definite intervals to consider policy issues and major problems. Frequency of board meetings is considered an important way of improving the effectiveness of the board (Conger & Lawler, 2009 and Adam & Ferreira, 2009). It is argued that board meetings and attendance of the meetings are considered important channels through which directors obtain specific firm information and are able to fulfil their monitoring role (Sanda, Makailu & Garba, 2005). A study conducted by Francis, Hasan and Wu (2012), indicated that firms with poor board attendance at meetings perform significantly worse than boards which has good attendance during financial crises. In addition, Ntim and Oser (2011) conducted a study a study in South Africa, which also suggested similar findings between the frequency of board meetings, and corporate performance where boards that meet more frequently tend to generate higher financial performance. According to the requirement of the revised 2007 Malaysian code of corporate governance, firms are encouraged to have regular board meetings for discharging duties and responsibility. On the other hand, there are researchers that consider board meetings not necessarily useful due to limited time non-executives spend with the firm and consider such time could be more utilized for a more meaningful exchange of ideas with the management. Also frequent meetings involve managerial time and increased travel expenses, administrative support requirement and directors meetings fees (Shireenjit & Barry 2015). This may affect enterprise activities within the firm as resources are being channelled toward less productive activities (Evans, Evans & Loh, 2012). A study conducted by Johl (2006), in the U.K among 100 companies found there was a negative relationship between frequency of board meetings and entrepreneurial activities in firms.

Nevertheless, the 2011 SEC code of corporate governance recommends at least two-thirds meeting attendance by directors to enable them perform the oversight function of the board.

Audit Committee and Firm Performance

The role of the audit committee is very important to the protection of shareholders and other stakeholder's interest. Oniwinde (2010) posits that the reported cases of poor and fraudulent financial reporting and governance experienced recently in Nigeria demonstrated the role the audit committee has to play either directly or indirectly as they are charged with overseeing financial reporting. The responsibilities bestowed on them due to information symmetry between the management and the owners of the business was expected to ease the Agency problems which would invariably lead to the reduction of Agency cost when the substantial interests of the owners are aligned with the company's interest (Yayah, Abdullah, Faudziah & Ebrahim, 2012). In light of the foregoing, various authors have studied the audit committee as an instrument of good corporate governance (Owolabi & Dada, 2011; Kumar & Singh, 2012) and also their influence on the financial reporting process for better performance. Similar studies have also been carried out in the context of Nigeria (Mohammed & Oladele, 2008; Uwuigbe, 2013), focusing on corporate governance and the financial performance of firms in Nigeria.

Audit Committee Size and Firm Performance

As regards audit committee size, CAMA sec. 395 specifies the maximum number of audit committee members in Nigeria as six but does not specify the minimum. A study by Be'dard, Chtourou and Courteau (2004) argued that when the audit committee is large, the control and oversight functions over the accounting and financial processes increase. In agreement to this, Anderson, Mansi and Reeb (2004) found that large size audit committee has the potential to protect and control the process of accounting and financial by bringing in greater transparency. Still, in line with the CAMA, a very large audit committee can bring about dispersion of responsibility and process losses (Karamanou & Vafeas, 2005).

Audit Committee Financial Expertise and Firm Performance

The issue of financial expertise for at least one audit committee member was first recognised under section 359(3) & (4) of the CAMA. This was further re-echoed in the SEC code of 2011. Carcello, Hollingsworth, Klein and Neal (2006) opined that having a member of an audit committee that possesses a financial expertise would likely reduce earnings management for firms where the corporate governance mechanisms are weak. Similarly, other studies found that firms with higher quality earnings are more associated with audit committee members who have financial expertise. This position has also been confirmed in more recent studies. Bouaziz (2012) found that an audit committee financial expertise has a significant impact on returns on equality and returns on asset.

Audit Committee Meetings and Firm Performance

As per audit committee meetings, previous studies noted that audit committee meetings serve as an important mechanism for improving and promoting corporate governance in firms. There is a likeliness that financial fraud would be reduced if the audit committee meets frequently and carries out its duties as required (Steward & Munco 2007). The frequency of audit committee meetings has also been observed to have a positive influence on return on equity (Azam, Hoque & Yeasmin, 2010).

Audit Committee Independence and Firm Performance

The independence of directors of companies has been widely discussed in literature. According to Siagian and Tresnaningsih (2011), directors and audit committees that are independent from management would improve the firm's reporting system and the audit quality of reported earnings because they are not subjected to potential conflicts of interest that reduce their monitoring capacity. This is particularly true when independent directors are members of the audit committee. For instance, Anderson, Mansi and Reeb (2004) found that full independent audit committees bring about lower debt financing costs which indicates that all the members must be independent before there could be any significant impact.

Methodology

The study adopts an ex post facto research design. Ex post facto design is a quasi-experimental research tool for examining how an independent variable, present prior to the study, affects a dependent variable; pre-existing groups are compared on some dependent variable (Lammers & Badia, 2010). Ex post facto is used for research in which investigation starts after the fact has occurred without interference from the researcher and to test hypotheses about cause and effect relationships. This study makes use of corporate annual reports of quoted companies in Nigeria to determine the existing relationship between board and audit characteristics and firm performance.

The population for this study consists of all 283 quoted companies in Nigeria. The sample is a segment of the total population. We selected 50 companies listed in the Nigerian stock exchange for the period of 2015 to 2017. The firms were selected using convenience sampling technique due to availability of data.

Model Specification and Data Analysis Plan

For the purpose of empirical analysis, this study uses descriptive analysis, correlation and multiple regression analysis to achieve the stated objectives and hypotheses. The empirical model specified was analysed with the aid of the panel least square (PLS) regression technique.

The model in its econometric form is specified in equation (i) below:

$$COMPERF = \beta_o + \beta_1 BSIZE + \beta_2 BIND + \beta_3 BMEET + \beta_4 AUCSIZE + \beta_5 AUCEXP +$$

$$\beta_6 AUCMEET + \beta_7 AUCIND + E \text{.....equation (i)}$$

Where:

COMPERF = Company performance

BSIZE = Number of persons on the board

BIND = Proportion of independent directors on the board

BMEET = Board meeting frequency

AUCSIZE = Audit committee size

AUCEXP = Audit committee financial expertise

AUCMEET = Audit committee meeting frequency

AUCIND = Audit committee independence

E = error term

Operationalization of Variables

Variables	Code	Proxy	Sign
Performance	COMPERF	ROA	+
Board Size	BSIZE	Total number of directors on board	+
Board Independence	BIND	Ratio of independent directors to board size	+
Board Meetings	BMEET	Number of board meetings held annually	+
Audit Committee Size	AUCSIZE	Number of audit committee members	+
Audit Committee Financial Expertise	AUCEXP	Number of audit committee with financial expertise	+
Audit Committee Meetings	AUCMEET	Number of audit committee meeting held annually	+
Audit Committee Independence	AUCIND	Ratio of independent non-executive directors to audit committee size	+

Source: Amber, Ragab, and Shehata (2014).

Data Presentation and Analyses

Descriptive statistics

Table 1: Descriptive statistics of variables

	Mean	Std. Dev.	Jarque-Bera	Probability

COMPREF	0.061788	0.057111	339.1779	0.0000
BSIZE	9.26	2.650643	15.12638	0.0005
BMEET	4.553333	1.195835	6.532769	0.0381
BIND	0.25112	0.181952	81.62921	0.0000
AUCSIZE	5.56	0.870701	15.93766	0.0003
AUCMEET	3.68	1.211356	5.874444	0.0530
AUCIND	0.282267	0.118702	18.33762	0.0001
AUCEXP	1.28	0.450503	30.76381	0.0000

Source: Author (2019)

The descriptive statistics of the variables examined is summarized in table 1 above. COMPERF, which is a proxy for firm performance, has a mean value of 0.061788 and standard deviation of 0.0571107. The small standard deviation suggests that company performance as captured using ROA is not widely dispersed among the various companies sampled. BSIZE has a mean of 9.260 and standard deviation of 2.65. Mean value provides evidence that on the average sampled companies have large boards of at least 9 persons. The mean value for BMEET is 4.553 showing that most companies have their board meeting at least five (5) times in a year. The standard deviation reveals that the disparity of board meetings among companies is low. BIND has a mean of 0.251120 and a standard deviation of 0.1819 showing that most companies have unequal membership of executive and non-executive directors on their board. Specifically, board independence is an issue as the value shows that one (1) of four (4) persons on the board is non-executive directors. Applying this to the average board size, one may deduce that at most an average of three (3) non-executives is found in sampled companies' boards. AUCSIZE has a mean of 5.567 showing that on the average most companies have approximately six (6) members on their audit committee. It also infers that most companies are compliant with the code of corporate governance as the approximate number is in line with regulations. AUCMEET has a mean of 3.680 and standard deviation of 1.211. The mean value shows that most companies have their audit committee meeting at least one in three months. AUCEXP has a mean of 1.280 and standard deviation of 0.45. The mean value indicates that most audit committees have at least one member on the audit committee with financial expertise. The standard deviation reveals that the disparity of financial experts on audit committee boards among companies is low. The mean value of AUCIND is 0.282267. Just as it is with board independence, this values suggests that independence is an issue. As regards the Jarque Bera statistics, the values as well as the probabilities show that all the variables are normally distributed in their occurrence.

Correlation Matrix

Table 2: Pearson correlation

Probability	COMPREF	BSIZE	BMEET	BIND	AUCSIZE	AUCMEET	AUCIND	AUCEXP
COMPREF	1							

BSIZE	-0.12492	1						
	0.129	---						
BMEET	-0.00570	0.255728	1					
	0.9449	*0.0016*	---					
BIND	0.050064	-0.179882	-0.156873	1				
	0.5443	*0.0282*	*0.0561*	---				

AUCSIZE	0.065451	0.26411	0.254919	-0.099559	1			
	0.4277	*0.0011*	*0.0017*	*0.227*	-----			
AUCMEET	-0.036175	0.311427	0.38958	0.012914	0.286487	1		
	0.6614	*0.0001*	*0.0001*	*0.8758*	*0.0004*	-----		
AUCIND	0.047444	0.275019	0.074888	0.268566	-0.19182	0.174543	1	
	0.5656	*0.0007*	*0.364*	*0.0009*	*0.0191*	*0.0333*	-----	
AUCEXP	0.049838	0.104048	0.203244	0.090184	0.139266	0.185511	0.118875	1
	0.5461	*0.2067*	*0.0129*	*0.274*	*0.0903*	*0.0235*	*0.1488*	-----

Source: Author (2019)

Table 2 shows the degree of association that exists between the dependent and independent variables. Form the table, COMPERF has a weak negative correlation with BSIZE with a coefficient of -0.124. It has a negative relationship with BMEET at -0.006. A positive weak relationship is observed between COMPERF and BIND with a coefficient value of 0.050. Similarly, COMPERF has a poor positive relationship with AUCSIZE with a value of 0.065; a negative correlation with AUCMEET at -0.036; a weak positive relationship with AUCIND with a correlation value of 0.047 and a positive relationship with AUCEXP based on a correlation of 0.546. Based on the above, it is observed that BSIZE, BMEET and AUCMEET have an inverse relationship with COMPERF while BIND, AUCSIZE, AUCIND and AUCEXP have a direct positive relationship with COMPERF.

Regression Output

Table 3: Estimation Output

Dependent Variable: COMPREF			
	Fixed	Random	Pooled
C	-0.7849 (0.4345)	0.2696 (0.7878)	0.6219 (0.5350)
BSIZE	-0.6866 (0.4940)	-2.1417* (0.0339)	-2.2478* (0.0262)
BMEET	-0.6728 (0.5027)	-0.6312 (0.5289)	-0.5245 (0.6007)
BIND	0.2613 (0.7944)	-0.2267 (0.8210)	-0.7095 (0.4792)
AUCSIZE	1.326 (0.1881)	1.8656** (0.0642)	1.8915** (0.0606)
AUCMEET	2.2943* (0.0240)	0.579 (0.5635)	0.364 (0.7164)
AUCIND	2.241* (0.0274)	1.7935** (0.075)	-0.0541 (0.957)
AUCEXP	-0.4871 (0.6274)	0.1116 (0.9113)	1.9792* (0.0498)

AR(1)			2.5258 (0.0127)
R-sq	0.5661	0.0518	0.0873
Adj R-sq	0.3047	0.0051	0.0352
F-statistic	2.1662*	1.1083	1.6744
Prob(F-stat)	0.0004	0.3611	0.1096
DW Stat	2.1659	1.4956	2.005

Source: Author (2019), ( ) Prob.values, * sig at 5%, ** sig at 10%

The table 3 is the estimation extract for three (3) regression analyses (Fixed, Random, and Pooled OLS). Looking at the Fixed effect, the R-squared of 0.566 reveal that the independent variables taking jointly explain approximately 56.6% of the systematic variations in the dependent variable leaving about 43.4% unexplained by variables not captured in the model. Allowing for degree of freedom, the adjusted R-square of 0.3047 shows that the independent variables, taking jointly explain approximately 30.4% of the systematic variations in the dependent variable. The F-Statistics of 2.166, and Prob. of 0.0004 shows that the model is significant and has a sound explanatory power of the linear relationship that exist among the variables. Furthermore, the signs of the T-statistics show that BIND, AUCSIZE, AUCMEET, and AUCIND have positive relationship with COMPREF while the BSIZE, BMEET and AUCEXP have negative relationship. Also, based on the probability values of the T-statistics, it is observed that AUCMEET and AUCEXP are the only significant variables in relation to COMPREF at 5% significance level.

With respect to the random effect, the R-squared of 0.05 reveal that the independent variables taking jointly explain approximately 5% of the systematic variations in the dependent variable leaving the rest unexplained by variables not captured in the model. The adjusted R-square shows that only about 1% of the systematic variations in the dependent variable is explained by the independent variables after allowing for degree of freedom. The F-Statistics of 1.108 and Prob. of 0.361 shows that the model is insignificant and has a weak explanatory power of the linear relationship that exist among the variables. Furthermore, the signs of the T-statistics show that, AUCSIZE, AUCMEET, AUCIND, and AUCEXP have positive relationship with COMPREF while the BSIZE, BMEET and BIND have negative relationship. Also, based on the probability values of the T-statistics, it is observed that BSIZE is the only significant variables in relation to COMPREF at 5% significance level, AUCSIZE and AUCIND are significant at 10% while the others are insignificant

Lastly, the Pooled OLS regression analysis having an R-squared of 0.08 reveals that the independent variables taking jointly explain approximately 8% of the systematic variations in the dependent variable leaving the rest unexplained by variables not captured in the model. The Adjusted R-squared of 0.035 reveal that after allowing for degree of freedom, the independent variables taking jointly explain approximately 3.5%% of the systematic variations in the dependent variable. The F-statistics of 1.674 and probability of 0.109, which indicates the overall explanatory power of the model, provides information that the explanatory power of the model is weak and that it is insignificant in explaining the linearity between the dependent variable and independent variables. Furthermore, the signs of the T-statistics show that BSIZE, BMEET, BIND and AUCIND have negative relationship with COMPREF while the AUCSIZE, AUCMEET, and AUCEXP have positive relationship. Based on the probability values of the T-statistics, it is observed that BSIZE and AUCEXP have a significant association with COMPREF at 5% significance level, AUCSIZE at 10% while others (BMEET, BIND, AUCMEET, and AUCIND) have insignificant association with COMPREF.

Test of Hypotheses

With reference to the test of hypothesis, the fixed effect analysis is used. Decision rule is to accept or reject the null hypotheses. Accept H_o and reject H_A if t-stat is greater than 0.05. Reject H_o and accept H_A if t-stat value is less than 0.05.

Ho1: Board size has no significant impact on firm performance.

BSIZE has a t-stat of -0.6866 and a probability value of 0.4940. This indicates that board size has an insignificant negative impact on firm performance at 5% significance level. Therefore, the null is accepted.

Ho2: Board independence has no significant impact on firm performance.

BIND has a t-stat of 0.2614 and a probability value of 0.7944. This indicates that board independence has a positive but insignificant impact on firm performance. Therefore, the null is accepted.

Ho3: Board meeting frequency has no significant impact on firm performance.

BMEET has a t-stat of -0.6728 and a probability value of 0.5027. This indicates that board meeting has an insignificant negative relationship with firm performance. Therefore, the null is also accepted.

Ho4: Audit committee size has no significant impact on firm performance.

AUCSIZE has a t-stat of 1.3260 and a probability value of 0.1881. This indicates that audit committee size has an insignificant positive impact on firm performance at a 5% significance level. Therefore, the null is also accepted.

Ho5: Audit committee financial expertise has no significant impact on firm performance.

AUCEXP has a t-stat of -0.4871 and a probability value of 0.6274. This is an indication that audit committee financial expertise has an insignificant negative impact on firm performance at a 5% level of significance. Therefore, the null is accepted.

Ho6: Audit committee meetings have no significant impact on firm performance.

AUCMEET has a t-stat of 2.2943 and a probability value of 0.0240. This indicates that audit committee meetings have a positive insignificant impact on firm performance at 5% significance level. The null is accepted.

Ho7: Audit committee independence has no significant impact on firm performance.

AUCIND has a t-stat of 2.2410 and a probability value of 0.0274. This indicates that audit committee independence has an insignificant positive impact on firm performance at 5% significance level. Therefore, the null is equally accepted.

Conclusion and Recommendations

This study aimed at identifying if and how board and audit committee characteristics impacts on firm performance in Nigeria. It focused on seven specific objectives. Empirical evidence revealed that the

relationship that exists between board characteristic and firm performance is negative with the exception of board independence; and the relationship that exists between audit committee characteristics and firm performance is positive with the exception of audit committee financial expertise. The R square indicated that board and audit committee characteristics explain about 56% of observed variations in firm performance. Therefore, based on the analysis and findings, this study concludes that board characteristics have a negative impact while audit committee characteristics have a positive impact on firm performance.

Recommendations

1. This study observed an insignificant negative relationship between board size and firm performance. This indicates that an increase in board size does not bring about increased performance. It is therefore recommended that the SEC code of corporate governance specify the maximum number of directors to be on the board of directors. This will help to prevent companies from having large boards, which do not necessarily improve performance but instead incur coordination costs.

2. The negative but insignificant relationship observed between board meeting and performance suggests an inverse relationship between both variables. It is recommended that the SEC code of corporate governance specify the maximum number of meeting the board should have annually since the more a board meets does not affect the performance of the company.

3. Audit committee size has an insignificant positive impact on firm performance. This study recommends that the audit committee size should be an optimum number that enables director carry out their duties without encroaching into the role of the board of directors or creating bottlenecks among members of the audit committee due to large numbers of members on the committee. The maximum numbers of members to be allowed on the audit commit should be disclosed.

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APPENDIX I

DESCRIPTIVE STATISTICS

	COMPREF	BSIZE	BMEET	BIND	AUCSIZE	AUCMEET	AUCIND	AUCEXP
Mean	0.061788	9.260000	4.553333	0.251120	5.560000	3.680000	0.282267	1.280000
Median	0.044950	9.000000	4.000000	0.185000	6.000000	4.000000	0.250000	1.000000
Maximum	0.365000	18.00000	8.000000	0.830000	8.000000	8.000000	0.670000	2.000000
Minimum	0.002600	5.000000	1.000000	0.077000	4.000000	1.000000	0.130000	1.000000
Std. Dev.	0.057111	2.650643	1.195835	0.181952	0.870701	1.211356	0.118702	0.450503
Skewness	2.082371	0.746248	0.369701	1.585206	-0.796882	0.040951	0.850693	0.979958
Kurtosis	9.076461	3.438951	3.706065	4.734693	3.099705	3.966024	2.801750	1.960317
Jarque-Bera	339.1779	15.12638	6.532769	81.62921	15.93766	5.874444	18.33762	30.76381
Probability	0.000000	0.000519	0.038144	0.000000	0.000346	0.053013	0.000104	0.000000

Sum	9.268200	1389.000	683.0000	37.66800	834.0000	552.0000	42.34000	192.0000
Sum Sq. Dev.	0.485983	1046.860	213.0733	4.932896	112.9600	218.6400	2.099429	30.24000
Observations	150	150	150	150	150	150	150	150

CORRELATION MATRIX

Covariance Analysis: Ordinary
Date: 06/26/19 Time: 16:34
Sample: 2015 2017
Included observations: 150
Balanced sample (listwise missing value deletion)

Correlation Probability	COMPREF	BSIZE	BMEET	BIND	AUCSIZE	AUCMEET	AUCIND	AUCEXP
COMPREF	1.000000 -----							
BSIZE	-0.124927 0.1290	1.000000 -----						
BMEET	-0.005707 0.9449	0.255728 0.0016	1.000000 -----					
BIND	0.050064 0.5443	-0.179882 0.0282	-0.156873 0.0561	1.000000 -----				

AUCSIZE	0.065451	0.264110	0.254919	-0.099559	1.000000			
	0.4277	0.0011	0.0017	0.2270	-----			
AUCMEET	-0.036175	0.311427	0.389580	0.012914	0.286487	1.000000		
	0.6614	0.0001	0.0000	0.8758	0.0004	-----		
AUCIND	0.047444	0.275019	0.074888	0.268566	-0.191822	0.174543	1.000000	
	0.5656	0.0007	0.3640	0.0009	0.0191	0.0333	-----	
AUCEXP	0.049838	0.104048	0.203244	0.090184	0.139266	0.185511	0.118875	1.000000
	0.5461	0.2067	0.0129	0.2740	0.0903	0.0235	0.1488	-----

APPENDIX II

Regression Estimate: Fixed Effect

Dependent Variable: COMPERF
Method: Panel Least Squares
Date: 06/26/19 Time: 16:35
Sample: 2015 2019
Periods included: 3
Cross-sections included: 50
Total panel (balanced) observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.088975	0.113356	-0.784915	0.4345
BSIZE	-0.004345	0.006328	-0.686627	0.4940
BMEET	-0.004043	0.006009	-0.672807	0.5027
BIND	0.020804	0.079595	0.261371	0.7944
AUCSIZE	0.019924	0.015025	1.326006	0.1881

AUCMEET	0.017089	0.007448	2.294376	0.0240
AUCIND	0.161526	0.072077	2.241015	0.0274
AUCEXP	-0.011878	0.024387	-0.487056	0.6274

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.566051	Mean dependent var	0.061788
Adjusted R-squared	0.304748	S.D. dependent var	0.057111
S.E. of regression	0.047620	Akaike info criterion	-2.969168
Sum squared resid	0.210892	Schwarz criterion	-1.825127
Log likelihood	279.6876	Hannan-Quinn criter.	-2.504380
F-statistic	2.166263	Durbin-Watson stat	2.165910
Prob(F-statistic)	0.000474		

APPENDIX III

Regression Estimate: Random Effect

Dependent Variable: COMPERF
Method: Panel EGLS (Cross-section random effects)
Date: 06/26/19 Time: 16:35
Sample: 2015 2017
Periods included: 3
Cross-sections included: 50
Total panel (balanced) observations: 150
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.011353	0.042094	0.269691	0.7878
BSIZE	-0.005347	0.002496	-2.141734	0.0339
BMEET	-0.002926	0.004635	-0.631295	0.5289
BIND	-0.007711	0.034008	-0.226736	0.8210
AUCSIZE	0.013976	0.007491	1.865668	0.0642
AUCMEET	0.002764	0.004773	0.579008	0.5635
AUCIND	0.090026	0.050195	1.793523	0.0750
AUCEXP	0.001426	0.012770	0.111649	0.9113

Effects Specification	S.D.	Rho
Cross-section random	0.032026	0.3114
Idiosyncratic random	0.047620	0.6886

Weighted Statistics

R-squared	0.051808	Mean dependent var	0.040247
Adjusted R-squared	0.005066	S.D. dependent var	0.048005
S.E. of regression	0.047883	Sum squared resid	0.325578
F-statistic	1.108389	Durbin-Watson stat	1.495682
Prob(F-statistic)	0.361104		

Unweighted Statistics

R-squared	0.041774	Mean dependent var	0.061788
Sum squared resid	0.465681	Durbin-Watson stat	1.045695

APPENDIX IV

Regression Estimate: Pooled

Dependent Variable: COMPREF
Method: Least Squares
Date: 06/26/19 Time: 16:36
Sample (adjusted): 2 150
Included observations: 149 after adjustments
Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.024065	0.038692	0.621952	0.5350
BSIZE	-0.005259	0.002339	-2.247813	0.0262
BMEET	-0.016564	0.031576	-0.524585	0.6007
BIND	-0.003413	0.004810	-0.709535	0.4792
AUCSIZE	0.013181	0.006968	1.891557	0.0606
AUCMEET	0.004296	0.011802	0.364021	0.7164

AUCIND	-0.000248	0.004593	-0.054067	0.9570
AUCEXP	0.100535	0.050795	1.979232	0.0498
AR(1)	0.214973	0.085110	2.525829	0.0127

R-squared	0.087329	Mean dependent var	0.062057
Adjusted R-squared	0.035176	S.D. dependent var	0.057208
S.E. of regression	0.056193	Akaike info criterion	-2.861561
Sum squared resid	0.442066	Schwarz criterion	-2.680114
Log likelihood	222.1863	Hannan-Quinn criter.	-2.787842
F-statistic	1.674490	Durbin-Watson stat	2.005139
Prob(F-statistic)	0.109679		

Inverted AR Roots .21