

Impact of Board Meeting and Board Size on Financial Performance of Listed Industrial Goods Companies in Nigeria

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Abstract

The importance of the board of directors to an organization's capacity to gain investor confidence and enhance financial performance is unquestionable. This paper investigated the relationship between board meetings, size and company financial performance of 13 listed industrial goods companies in Nigeria using a 10-year data set (2012-2021). The data set was extracted from the Nigerian Stock Exchange website and analyzed with the aid of STATA 15 and tested for a panel effect. The result revealed that meetings of the board show insignificant and negative financial performance. However, board size reveals a significant positive effect on financial performance. The study concluded that board meetings of members are crucial for firms' performance. The outcome of the study is important for industrial goods firms for management effectiveness and contribution to the body of knowledge. Managers should take steps to improve their board attributes in accordance with the corporate governance code.

Keywords: Board meeting, the board size, financial performance, return on asset

1. Introduction

The board committee meetings are a reliable predictor of how well and how efficiently a board makes decisions and monitors an organization. According to Johl et al. (2015), directors can get the company information they need to perform their monitoring duties by attending board meetings and participating in the sessions. The corporate board's ability to effectively advise, oversee and discipline management is strengthened when it meets more frequently thereby enhancing the

company's financial success. Non-executive directors now often report the minutes of board meetings to shareholders, making board meetings the sole time they formally participate in corporate affairs. According to Hahn and Lasfer (2001), a non-executive director's participation in board meetings is one sign of their value to the business procedure and indisputably one of the clearest signs of how well those decisions are being reviewed.

All publicly traded companies in Nigeria must abide by a comprehensive corporate

governance code established by the Nigeria Securities and Exchange Commission (SEC) in 2011 to safeguard their business operations. A few provisions of regulation mandated that public company board meetings at least four times every fiscal year. Every director must be present for at least two-thirds of every panel meeting; failure to do so disqualifies a candidate for re-nomination unless there are compelling reasons for doing so, which the board must disclose to the shareholders at the annual general meetings. Again, according to Trivedi (2010), measuring the financial results of a firm's policies and activities is referred to as financial performance. It can also be used to compare the performance of similar enterprises operating in the same industry or to aggregate the performance of different businesses or sectors. financial performance is employed to evaluate a company's financial standing over a specific period.

This study aims to determine how board committee meetings and size affect financial performance (return on asset), specifically concerning Nigeria's publicly traded industrial goods. Numerous examples of well-publicized accounting discrepancies have been explained by advanced countries and emerging countries, as firms engage in a sharp practice that is detrimental to

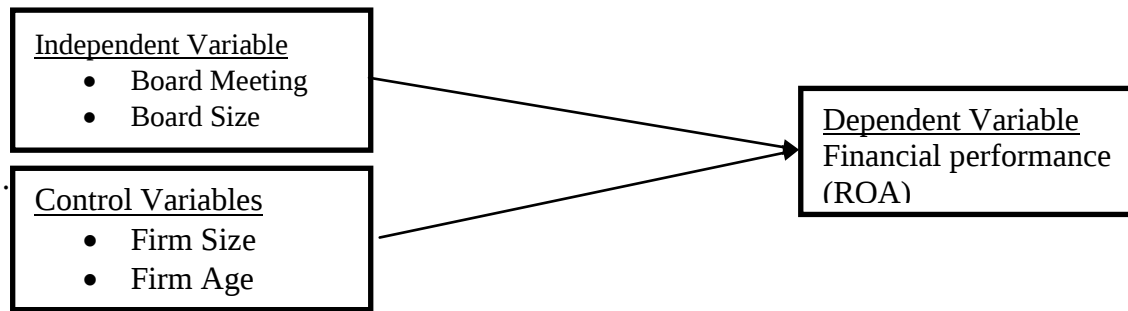
stakeholders' longtime organizational survival. In light of this, factors contributing to such corporate failures include the controversial issue surrounding the appropriate size of the board of directors and lack of adherence to the corporate governance code and managers' failure to fulfill their stakeholder obligations (Abidin et al., 2009).

This study is limited to industrial goods firms and within the span of 2012 to 2021. Board meetings and board size are the study's key factors. The work makes major contributions to the body of empirical literature as well as to the advancement of policy, financial performance (return on asset), and future research. The creation of statements of hypotheses and a survey of pertinent literature are covered in the following section of this essay.

2. Review of Related Empirical Literature

Investigating how board meetings and size affect the financial results of listed industrial goods in Nigeria has been the subject of debate in the empirical literature. Few of these researches have been examined in this subsection. Therefore, the current study conceptualized board meetings and the board size to show the relationship in Figure 1.

Figure 1: Conceptual Framework



2.1. Board Meeting and Financial Performance

An essential element of efficient corporate governance is a board meeting. The agency theory suggests that several board meetings may impact company success. Increased meeting frequency encourages discussion to solve agency issues and encourages idea exchange and performance transparency. According to Bursa, Malaysia and Berhad's (2017) report, the board should regularly convene even if there is no minimum number of meetings required (i.e., at least five meetings if not more frequently as situations necessitate). Additionally, depending on the circumstances of the companies, the number of board meetings is specified under the Malaysian Code on Corporate Governance (MCCG).

Prior studies have shown that regular meetings as part of the governance mechanism increases the organization and communication of the board members (Elamer et al., 2018; Correia & Lucena, 2020). Meetings of the board help clarify

any uncertainty and develop shared expectations, attitudes and values, thereby enhancing the company's effectiveness and performance. Regular meetings can standardize knowledge and discuss the strengths and shortcomings that affect firm's financial performance (Correia & Lucena, 2020; Nguyen et al., 2021). According to Amin et al. (2018), regular board meetings are signifies that a company is not operating well and should be actively monitored by an outside director. Wang et al. (2020) had negative expectations for the board meeting. They discovered that board meetings have a negative impact on company performance. As a result, such businesses hold meetings more frequently to address problems brought about by poor performance. Effective board meetings also make stakeholders aware of issues or disputes in the business operation. Given these contrasting perspectives on the nature of board meetings, it appears that the question of whether board meetings may have a good governance influence on business success is a contentious one.

Board meetings aid a particular board to monitor and supervise its operations while safeguarding shareholder capital (Chou et al., 2013). A similar relationship between board activity and financial results, has also been determined by the frequency of board meetings. Usman (2018) also used a population of 12 listed building materials firms in Nigeria, out of which 9 companies were chosen to form the sample to study the effect of corporate board meeting frequency on the financial performance of listed building materials companies in Nigeria. According to the study, the frequency of corporate board meetings has a favorable but minor effect on financial performance. Moreover, Akinwole (2020) determined the effect of board diligence on the performance of quoted firms in Nigeria and revealed that board diligence impacts the performance of quoted companies in Nigeria.

Conversely, Azar et al. (2016) found a negative link between the number of board meetings and Tobin's Q (financial performance). Also, another study that used ordinary least square regression showed that frequent organizational board meetings and their effectiveness were linked (Ju Ahmad et al., 2017). However, their research discovered that board meeting frequency is not related to firms' performance. As such, having a required board meeting only

emphasizes proper management and control, and enhances the company's financial and non-financial performance. Following the position of previous studies, the hypothesis is stated:

H1: board meeting has no significant effect on financial performance.

2.2 Board Size and Financial Performance

The number of directors on the board determines the board's size (Jensen and Meckling, 1976). There is considerable debate over the ideal size of a board of directors. Several studies have indicated that boards should contain between 7 to 15 directors (Ogbechie et al., 2009). However, in the empirical position of studies, the ideal board size is between 7 to 8 people (Mak and Kusnadi, 2005). These support Jensen's (1993) claim that improved financial performance results from smaller boards. Additionally, once a board has more than 7 to 8 members, its effectiveness declines, and control passes to the chief executive officer.

Conversely, According to Ghabayen (2012), businesses with smaller boards outperform those with larger panels in terms of performance. Also, Lipton and Lorsch (1992) in their study posited that board size in United States corporations' board size is excessive, which raises expenses for shareholders, reduces market chances for competition and eliminates jobs for

staff. Their study recommends that boards should only include 7 or 8 members. Also, when there are more than ten (10) board members, it is challenging for the board to offer guidance and proposals. Likewise, Bennedsen et al. (2008) posited that larger panels result in more business expenses because they affect communication, decision-making and board director synchronization. On the contrary, it was claimed that a more significant board size results in better decision-making since the more directors a board has, the more knowledgeable its members are, thereby increasing the likelihood that business disasters will be avoided (Guest, 2009).

Previously, researchers found that the size of the board and financial performance were inversely related, see Bennedsen et al. (2008), Desoky and Mousa (2012). In these studies, findings revealed a bad correlation between these two parameters in both nations. In addition, Lasfer (2004) similarly discovered a link between board size and financial performance that is unfavorable with a sample of 1402 German market-listed companies. Following research from Switzerland, Japan, and Canada, Haniffa and Hudaib (2006) discovered that board size was inversely connected with FP in the Asian setting (Loderer & Peyer, 2002; Mak & Kusnadi, 2005).

However, other studies discovered a positive correlation between board size and financial performance (Goh et al., 2014). Their studies demonstrated that a larger board size improves firm performance since it allows for better policymaking and oversight of the CEO's operations due to the diversity of abilities and experiences among board members. Additionally, Topak (2011) investigated the connection between the size of the board and the financial success of Turkish companies. Turkey is a developing market with distinctive characteristics, including its ownership structure, social culture and legal system. A sample of 122 Turkish companies from the years 2004 to 2009 was used in the study to examine the relationship between board size and company performance using panel data methodologies. The results showed no connection between board size and company performance. Other studies produced comparable results (e.g., Akinwale, 2020; Yakob & Norraidah, 2021). The results of Kristianti's (2015) investigation into the impact of board features on company performance, which used samples from high-performing firms in the consumer goods sector from 2010 to 2014, showed that board size has a significant detrimental impact on the performance of the firm.

Furthermore, Shukeri et al. (2012) discovered a strong positive correlation

between board size and returned on equity, a metric used to assess the financial performance of businesses. They used 300 publicly traded Malaysian companies, one from every industry, chosen randomly. Their findings demonstrated a favorable association between board size and return on equity. Similar to this, Aman and Nguyen (2012) examined the composition of corporate boards in Japan to assess the impact of board size on performance and discovered a good correlation. The larger board size hence, guarantee the high value of enterprises and thereby implying that:

H2: board size has no significant effect on financial performance.

3. Methodology

A correlational research design was adopted to undertake this study. The study population consists of sixteen (16) listed industrial goods companies on the Nigerian Stock Exchange. Three (3) do not have complete data set for the study period, so the sample is reduced to 13, accounting for more than 67 percent of the listed industrial goods companies in Nigeria. The data for

analysis was sourced from the Machamme Ratio Database and the Nigeria Stock Exchange. The sampled companies were chosen based on three criteria: they had to be industrial goods companies; listed on the Nigerian Stock Exchange; and have data available for the ten years period of 2012 to 2021. A regression model was applied to get a conclusion regarding the factors affecting earnings management. A multivariate regression analysis was suitable because there were multiple predictor variables. The model is as shown.

$$ROA_{it} = \alpha + \beta_1 BMEET_{it} + \beta_2 BSIZE_{it} + \beta_3 FSIZE_{it} + \beta_4 FAGE_{it} + \varepsilon_{it}$$

Where;

ROA = Return on Asset

BMEET : Number of meetings attended by the board of directors

BSIZE = Total number of directors sitting on the board

FSIZE = The logarithm of total asset

FAGE = The age of incorporation to date

α = is the intercept

ε = is the error term of the model

I = firm year

Table 1: Variable definition and measurement

Variable	Acronym	Measurement
Return on Asset	ROA	Earnings before interest and tax/Total assets
Board meeting	BMEET	Number of meetings held in a year
Board size	BSIZE	Total number of directors sitting on the board
Firm size	FSIZE	The logarithm of total asset
Firm age	FAGE	The age of incorporation to date

4. Results and Discussion

The findings presented in the Tables 2 to 7 are the result and outcomes of the study. However, descriptive statistics are shown in Table 2, normality test findings in Table 3, correlation matrix in Table 4, variance inflation factor in Table 5, linearity test findings in Table 4, heteroskedasticity test results in Table 5, Breusch-Pagan Lagrangian Multiplier test result in Table 6, Hausman specification test results in Table 7

and REM-GLS regression results in Table 8.

Table 1 showed the mean, the median, the maximum, the minimum, the standard deviation, the sum square deviation and the observations of all the variables used in the research project. The data was obtained from the annual reports of 13 industrial goods companies listed on the Nigeria Stock Exchange (NSE) from 2012 to 2021 with a total number of 130 observations.

Table 2: Descriptive Statistic Result

Variable		Mean	Std. Dev.	Min	Max	Observations
ROA	overall	11.866	17.888	-5.799	119.633	N = 130
	between	10.842	3.798	45.171		n = 13
	within	14.514	-29.880	86.869		T = 10
BMEET	overall	4.739	0.977	4	9	N = 130
	between	0.641	4	5.7		n = 13
	within	0.756	3.139	8.139		T = 10
BSIZE	overall	9.8	2.129	4	17	N = 130
	between	1.414	6.9	11.3		n = 13
	within	1.635	6.5	15.5		T = 10
FSIZE	overall	6.947	0.532	5.931	8.168	N = 130
	between	0.528	6.269	7.951		n = 13
	within	0.153	6.454	7.373		T = 10
FAGE	overall	28.962	12.935	2	49	N = 130
	Between	13.074	6.5	44.5		n = 13
	within	2.883	24.462	33.462		T = 10

Source: STATA 15 Output, 2022.

Table 2 depicted the results of descriptive statistics on a board meeting, board size and financial performance (return on asset). The

ROA has a mean value of 12% (std. dev. = 18%), with a minimum value of -6% and a maximum value of 112. The mean board

BMEET value of 5% (std. dev. = 0.977), with a minimum value of 4 and a maximum value of 9. This revealed that meeting of the board member was held 5times. The average value of BSIZE is 10 (std. dev. = 2.129), with a minimum value of 4 and a maximum value of 17. This means that board size of the firms is within the frame of corporate governance code but differs from one firm

to another interims of numbers. The control variable of firm size (FSIZE) showed a mean value of 7% (std. dev. = 0.532), with a minimum value of 6%, and a maximum value of 8%. The average proportion of FAGE is 29 (std. dev.=12.935), with a minimum value of 2 and a maximum value of 49 respectively.

Table 3: *Chen-Shapiro QH* test for normal data*

Variable	Obs.	QH	QH*	P-value
ROA	130	0.75096	2.83950	< 0.0001
BMEET	130	0.74425	2.91600	< 0.0001
FSIZE	130	0.97773	0.25389	< 0.0001
FAGE	130	0.95920	0.46523	< 0.0001
BSIZE	130	1.00738	-0.08414	> 0.2

Source: STATA 15 Output, 2022.

Table 3 depicted the normality test result using the Chen-Shapiro (Chen & Shapiro, 1995). The hypothesis that data were normally distributed play a significant role in many empirical studies. Therefore, Table 3 showed that BSIZE has a p-value greater

than 0.05 and other variables (BMEET, FSIZE, FAGE)with levels of significant p-values of 0.01, 0.05, and 0.1 respectively. Hence, results infer that the data set is not normally distributed.

Table 4: *Correlation result*

Variable	ROA	BMEET	BSIZE	FSIZE	FAGE
ROA	1.000				
BMEET	-0.005	1.000			
BSIZE	0.202	0.098	1.000		
FSIZE	-0.158	-0.141	-0.204	1.000	
FAGE	-0.268	-0.044	-0.175	0.422	1.000

Source: STATA 15output, 2022.

Table 4 depicted the correlation between the variables. Result indicated that BMEET failed to show significant association with ROA. Hence, BSIZE have significant

positive relationship with ROA. The links among the predictors showed a maximum coefficient of 0.098 per cent (between BMMET & BSIZE), which fell short of 80

per cent required to prove the presence of variables.
multicollinearity among the independent

Table 5: *Multicollinearity Test Result*

Variable	VIF	1/VIF
FAGE	1.31	0.765487
FSIZE	1.26	0.792222
BSIZE	1.07	0.930256
BMEET	1.03	0.974306
Mean VIF	1.16	

Source: STATA 15 output, 2022.

Table 5 depicted the multicollinearity test result (variance inflation factor) and tolerance level computed and their results showed the same results as contained in Table 5, None of the VIF figures were up to 3.3, which was the threshold required for the presence of multicollinearity. Therefore, the dependent and independent variables were carefully chosen and free of multicollinearity on the effect of the board meeting, and board size on the financial performance of listed industrial goods in Nigeria.

Table 6: *Post-Estimation Test*

	Hetest.	Bruch-Pegan Test	Hausman Test
chi2(1)	3.95	0.42	7.69
Prob > chi2	0.047	0.259	0.174

Source: STATA 15 Outputs, 2022.

Table 6 showed the outcomes of the test and revealed that the data set passed heterascardacity because the p-value was not significant (0.047).Also, the Breusch/Pagan Lagrangian Multiplier Test assists in deciding between the random effects model and a simple Ordinary Least Square (OLS). Table6, the Prob > Chibar2 is significant (p-value = 0.259), which means there is a panel effect in the model and therefore random effect is preferred for the study.

Table 7: *Random-effects GLS Regression*

ROA	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
BMEET	-0.187	0.278	-0.67	0.500	-0.731	0.357
BSIZE	0.349	0.131	2.67	0.008	0.092	0.605
FSIZE	-0.510	0.659	-0.77	0.438	-1.801	0.781
FAGE	0.049	0.027	1.77	0.077	-0.005	0.102
Cons.	0.202	5.041	0.04	0.968	-9.677	10.081
Wald chi2 (6)	4427.98					
Prob>chi-square	0.000					
Adj R 2	0.968					

Source: STATA 15 outputs, 2022.

Table 7 portrsyed that BMEET is negative and insignificantwhile BSIZE is statistically significant. It showed that for a board-size composition of the firm, there is an effective financial performanceoutcome. The adjusted R-square of 97% revealed the level of variation between dependent and independent variables. Based on the findings in Table 6, Hypothesis 1 which states that there is no significant relationship between a board meeting and financial performance is accepted and supported by Azar et al. (2014) and Wang et al. (2020). Also, the second hypothesis that there is no significant nexus between board size and financial performance is rejected. These findings are consistent with Goh et al, (2014), Kristianti (2015), and Shukeri et al. (2012) that found a considerable relationship between board size and financial performance (ROA).

5. Conclusion and Recommendations

This study examined the relationship between a board meeting and board size on the financial performance of listed industrial

goods companies in Nigeria. The findings showed that board meeting has a negative and insignificant impact on return on asset, while board size is statistically significant. The study outcome, has policy implications that future research can be extended to another sector of non financial firms because the results cannot be generalized. Therefore, the study recommended that industrial goods companies should take advantage to look at how boards conduct meetings and maintain the maximum size of the board in compliance with the corporate governance code.

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