Determinants of Financial Reporting Quality in Quoted Manufacturing Firms: Nigerian Evidence

Carl Madawa Seiyaibo, Emma Ikechukwu Okoye

Abstract

Purpose of the article: The study is undertaken to establish whether there is a relationship between financial reporting quality and the firm size, board independence, board size, institutional ownership, and growth opportunity in manufacturing firms quoted on the Nigerian Security Exchange.

Methodology/methods: The research employs ex-post facto design; the population of the study is made up of fifty-four (54) manufacturing firms quoted on the Nigerian Stock Exchange (NSE); the judgmental sampling technique was utilized to select forty eighty (48) manufacturing firms as the study sample, while the Jarque Bera normality test, correlation and ordinary least squares (OLS) were used in the data analysis.

Scientific aim: To ascertain the determinants of financial reporting quality in quoted manufacturing firms listed on the Nigeria Stock Exchange.

Findings: The study revealed a significant positive relationship between the board size and firm financial reporting quality. Equally, the study further revealed that the firm size, board independence, institutional ownership and growth opportunity as financial reporting quality indicators have no significant effect on financial reporting quality.

Conclusions: The study concludes that the board size is positively associated with firm financial reporting quality and that large boards are associated with better firm financial reporting quality, possibly through closely monitored management and robust decision-making. The implication is that larger boards can increase the quality of collective control and decision-making by utilizing the diversities of knowledge and expertise in the board, hence increasing financial reporting quality.

Keywords: financial reporting quality, firm size, board independence, board size, institutional ownership, growth opportunity

JEL Classification: M400, M410

Introduction

In keeping with the tenets of the agency theory, managers of business entities account for their stewardship to diverse stakeholders through published financial statements; both the private and public sector acknowledged the essence of timely publication of quality financial reports and the critical role it plays in strategic decision-making. Renkas *et al.* (2016) believed that the quality of financial information determines the viability of future strategic decisions. Equally they noted that stakeholders' expectation and the need for qualitative financial reports also have re-defined the global consensus for the harmonization of reporting standards by migrating from rudimentary financial reporting to more value driven information necessary for strategic decision-making. Information disclosed by the financial statements enables stakeholders to better understand the profitability or otherwise of the business, solvency level, as well as the assessment of the financial strength and growth potentials of the firm. Furthermore, reported financial statements enhance comparative analysis and provide a better basis for making projections. However, the expectations of having a virile published financial report without manipulation, window dressing or financial transactions discretionally treated have cast serious doubt on the reliability of published financial statements (Gajevszky, 2015).

The financial reports are germane to investors' decision-making and are expected to contain relevant information which is relevant and reliable for strategic decision-making. However, numerous financial scandals and the losses incurred as a result of earning management practices and other financial mismanagement have continually given stakeholders cause for concern and significantly reduced investors' confidence.

Consequent upon the foregoing, different reforms as regards financial reporting requirements and governance policies have been undertaken by firms, but the outcome of the reforms still falls below desired expectation. And this has orchestrated the need for solution-oriented researches globally. It is also interesting to note state that results on researches relating to the determinants of financial reporting quality are mixed in nature and mostly conducted in developed economies, with very few studies conducted in developing economies hence generalizing such finding to less developed economies become apparently unrealistic, owing to the diversity of business environment, legal system, and governance mechanism.

Therefore, in the light of the foregoing, it is instructive to undertake a comprehensive study into the determinants of financial reporting quality in selected manufacturing firms quoted on Nigeria Stock Exchange with a view to determining if the trend is in consonance with prior studies or otherwise.

1. Literature review and theoretical framework

1.1 Financial reporting quality

The definitions of financial reporting quality are broad and vary with the thought and objectives of each researcher. However, Tang *et al.* (2008) defined financial reporting quality as the extent to which the financial statement is able to provide true and fair information about the underlying performance and financial position that satisfies the varied stakeholders' interest. However, Jonas, Blanchet (2000) consider two distinct areas which are widely considered in the evaluation of financial reporting quality. The first stage depends on the needs of users, while the quality of financial reporting is adjudged on its usefulness to the user of the financial information (Baxter, 2007). On the other hand, the second phase of measuring financial reporting quality specifically focused on the belief of shareholder/investor protection. It is overtly known that users need phase

centres on the provision of relevant and reliable information for making relevant decisions whereas the second phase considered the protection of investor's assets.

1.2 Determinant of financial reporting quality

The existing literature identifies the determinants of financial reporting quality to comprise corporate governance, firm size, board size, firm growth opportunities, and institutional ownership. These attributes are discussed below.

1.2.1 Corporate governance

Corporate governance is the mechanism, process and practice by which companies are directed, governed and controlled. The relationship between corporate governance as an element in determining and realizing the robustness of financial reporting quality has attracted much attention in the developed countries (Klai, Omri, 2011). Corporate governance is a set of rules defining the relationship between stakeholders, managers, and board of directors of a company and it influences the operations of a company. It deals with issues that relates to separation of ownership from control.

1.2.2 Board independence

Board independence is espoused as the ratio of independent directors to the total number of directors on the board. Studies on corporate governance are on the increase and gaining the attention of academic scholars. Gillan (2006) observes that researches on board independence have increased geometrically in the last decade and have equally created a greater impact. Various studies on board composition have examined issues related to the size of the board, executive director's participation on the board, and the proportion of board independence (Adams *et al.*, 2010; Anderson *et al.*, 2004). According to Jensen (1993), the board is entrusted with the responsibility for a company's internal control

systems and has the ultimate responsibility for the operations of the company.

1.2.3 The firm size

The size of a business affects its operations and financial transactions. The firm is described as the business unit or undertaking which owns the resources of the business, within the scope of its plant's arsenal, its controls and how it is been managed. There is no particular description for a particular firm. Every firm could be sized based on the resources in its disposal. The size of a company in a specific industry at a specific time may be measured by the results in the lowest production cost per unit output. Equally, the size of a company reflects the characteristics of the company and also determines the shareholders base, as well as the capital structure. Disclosure requirement is also determined by size of the firm. The firm size is a strategic issue and its elements was deeply studied and presented date far back through a seminal article (Coase, 1937) which raises the questions of how firm boundaries affect the allocation of resources and what determines firm boundaries. The outcome of the study attracted large body of research and different degrees of questions were raised (Williamson, 1986; Klein *et al.*, 1978).

1.2.4 Board size

Literature on the board size presents divergent views and results. The results of some studies revealed that a large board size is an indication of better and viable governance, whereas, some other studies state that a smaller board size enveloped the elements of better governance with outputs of reliable and quality financial reporting. The board size is often used by some scholars to measure the quality of corporate governance and financial reporting. The board of a firm is responsible in ensuring and monitoring the quality of information in financial reports. The results of several studies have revealed that the twins of sound governance

and board composition reduces the adverse effects of earnings management, as well as the likelihood of creative financial reporting.

The board size is often used by some scholars to measure corporate governance on how it relates to quality of financial reporting. The board size is the number of directors, both the executive and non-executive members duly elected and appointed to govern the affairs of the company independently and responsible for ensuring the necessary checks and balances. However, there is no single optimal size for a board.

1.2.5 Growth opportunities

A growth opportunity is an element used in the literature of finance as a determinant of financial reporting quality. The firm growth is an outcome resulting from the combination of firm-specific resources, capabilities and routines and the relating firm's growth opportunities dependent on its current organizational production activities (Nelson, Winter, 1982; Coad, 2009). The value of share prices of a firm is a reflection of the value of assets of the firm-in-place and the value of growth opportunities the firm has. The firms' growth opportunity is likely to account for a larger proportion of market values than assets-in-place. Geroski (1995) beleieved that the growth and survival prospects of new firms will depend on their ability to learn their environment, and to link changes in their strategy choices to the changing configuration of that environment. A firm is said to have growth opportunities, when it has greater survival span with high employment opportunities that will greatly contribute to the economic growth with innovative ideas and have elements of market concentration. Delmar (1997) stated that a firm of growth opportunities has the following indicators: a better financial or stock market value, a reasonable number of employees, a better sale and revenue value, a reasonable productive capacity, and a high value of production and quality value added of production.

1.2.6 Institutional ownership

The earlier literature has concluded that the ownership structure of firms has an impact or correlation on firms' financial reporting quality and performance. Owing to this, some firms consciously build its ownership structure to attain such desired objective. Institutional investors are viewed dually as "asset managers" and "asset owners". Asset management enhances the corporate value of companies through day-to-day constructive dialogue. Whereas asset owners are obligatory to fully disclose their stewardship responsibility policies. Institutional investors have the chance, know-how, skills and resources to influence the performance of the companies and have contributed to dynamic, increased competition professionalism (Cornett *et al.*, 2005). Maug (1998) observes that irrespective of the influence of institutional owner's strategic decisions or not, it is relatively a function of their stake or ownership in the company. Institutions with a high stake in the company have less marketable number of shares and likely will hold them for longer, which exposes institutions to the performance of the company and will give them incentives to actively monitor and try to influence strategic decisions.

1.3 Measurement of financial reporting quality

The measurement tools of financial reporting quality has generated much concern and been the focus of several applied research projects. The classification is based on the degree and basis of usage; four broad categories were identified by Beest *et al.* (2009). Among the measurement tools employed are the accrual models, value relevance models, specific elements of financial reports and methods that operationalize the qualitative characteristics. Many research activities apply the first three categories. However, only a limited number of studies utilize all qualitative characteristics in the assessment of financial reporting quality. More interes-

tingly, most of these studies utilize one or more qualitative characteristics. The application of accrual model is based on the activities of earnings management.

Earning and accrual quality is represented by the Dechow, Dichev (2002) as the accrual quality measure. This is used to determine how well accruals map into cash flows. The measure has the capability to define the accrual quality as the error variance from a regression of working capital accruals on past, current, and lagged cash flows. Another measure of financial reporting quality consists in the value relevance models. This model is designed to assess whether particular accounting amounts reflect information which is used by investors in valuating firms' equity and examine the relationship between a security price dependent variable and a set of independent accounting variables (Beaver, 2002). According to Holthausen, Watts (2001), value relevance exists in three categories, *i.e.* relative association studies, incremental association studies and marginal information content studies.

Finally, there are the methods which operationalize qualitative characteristics with the aim of assessing the qualities of different aspects and dimensions of financial and non-financial information of financial reports. This is done in order to determine their usefulness, as regards to the category of elements the financial report been surveyed by the researcher (Beest *et al.*, 2009). However, the operationalization of qualitative characteristics is realised through the application of indexes or questionnaires created purposely to capture the qualities of the qualitative characteristics. It is noteworthy to state that the methods have been applied by a number of researches, such as Jonas, Blanchet, 2000; Lee *et al.*, 2002; McDaniel *et al.*, 2002; Daske, Gebhart, 2006; or Callao *et al.*, 2007. The researches mostly used either of the one or more qualitative characteristic individually in their studies, with the exception of Beest *et al.* (2009), who make the complete

use of all the qualitative characteristics in a single study by incorporating them in a financial reporting quality index.

2. Empirical Review

The existing literature is replete with studies undertaken internationally and locally on this phenomenon and the researcher attempt to review some of this study in line with the context of this study. A study undertaken by Bhattacharya, Graham (2016) on institutional ownership and firm performance in Finland, by applying three stages least squares (3SLS) technique in its computation after Herfindahl index of ownership shares by institutional owners. The findings of the study showed that ownership stakes adversely affect the firm performance and the impact is very high in comparison to the negative effect of firm the performance on the institutional ownership.

Affan *et al.* (2017) investigated the effect of ownership structure on the quality of financial reporting of manufacturing firms listed on the Indonesia Stock Exchange (IDX) within a period of 2013–2015. The data were analysed using Mann Whitney's test. The findings of the study revealed that the large percentage of institutional ownership in manufacturing companies could improve financial report quality which uses the accrual earnings management indicator. The majority of shares controlled by the institution are capable of minimizing the conflict between the shareholders and management, while improving supervision over the management's behaviour, hence minimizing opportunistic actions.

In their study, Babatunde, Babatunde (2017) investigated the relationship between corporate governance and financial reporting quality in Nigeria. The data from 40 quoted companies in Nigeria spanning 2006 to 2015 were obtained. Multiple regression analytical tools were adopted to test the relationship.

The outcome of the study revealed that board characteristics and financial reporting quality in Nigeria have a significant and positive relationship. In addition, a significant positive relationship was also established between the audit committees and quality of financial reporting. It concludes that there is a positive significant relationship between the board independence and financial reporting quality.

Al Daoud *et al.*, (2015) studied the relative impact of internal corporate governance on the timeliness of generating financial reports of Jordanian firms. The data were collected from a two-year period of 2011 and 2012 and the multiple regression analysis was used to test the hypotheses. The findings of the study support the agency theory; hence the results of the relationships between the corporate governance mechanisms, finding that the audit report lag (ARL) and management report lag (MRL) were generally significant. Consequently, the results of the studies revealed that corporate governance mechanisms affect the timeliness generation of financial reports.

Onuorah, Imene (2016) appraised the effect of corporate governance and financial reporting quality in selected firms in Nigeria. The research design employed was descriptive and a ten years' study period of 2006 to 2015 was selected. The variables of the study were subjected to econometric tests. The findings from the study showed that in the short run, the indicators of corporate governance and audit quality influence financial reporting quality among the firms in Nigeria. As regards to the studied sample, it was observed that Guarantee Trust Bank Plc., among the five selected companies in the study in Nigeria, has better financial reporting performance based on the board structure size (BRDSZ) and the size of audit committee (ADCMZ).

Atu *et al.*, (2016) appraised the determinants of earnings management in Nigerian quoted companies. The multiple ordinary least square regression was employed to analyse the data extracted. The outcome of the study established a significant relationship between the board sizes and the audit firm type on earning management. In addition, a non-significant relationship between the firm size and earning management was equally established. Nwaobia *et al.* (2016) conducted a study on financial reporting quality on investors' decision-making. The study applied the ex-post facto research design. The secondary data were extracted from the annual financial reports and accounts of ten companies for a period of 5 years (2010–2014) in Nigeria with the application of the ordinary least square for data analysis. The study results show that higher reporting quality of firm increases the likelihood of the investment decision.

3. Research Methodology

The research employs the ex-post facto design. With the population of the study comprising all fifty-four (54) manufacturing firms quoted on the trading floor of the Nigerian Stock Exchange (NSE) as at 31 December 2017 with consistent data set from 2002 to 2017. Notably, a number of these firms are multinationals and as such embraced quality financial reporting techniques in line with the global best practices; the judgmental sampling technique was utilized to select forty eighty (48) manufacturing firms as the study sample. The statistical tools adopted in the data analysis were the the Jarque Bera normality test, correlation and ordinary least squares (OLS) simple regression. Based on the nature of the topic, the post regression diagnostic test (PRDT) was carried out to certify the regression model before generalization, which includes: test for multicolinearity using the variance inflation factor (VIF) test, the Ramsey regression specification-error test for omitted variables (Ramsey RESET), and the test for auto correlation using Durbin – Watson D statistic.

3.1 Hypothesis Development and Model Specification

In order to effectively ascertain the determinants of financial reporting quality in quoted manufacturing firms in Nigeria, the following hypothesis stated in the null form is formulated for the analysis:

- H_{O1} The firm size has no significant positive effect on financial reporting quality.
- H_{O2} The board independence has no significant positive effect on financial reporting quality.
- H_{O3} The board size has no significant positive effect on financial reporting quality.
- H_{O4} The institutional ownership has no significant positive effect on financial reporting quality.
- H_{O5} The growth opportunity has no significant positive effect on financial reporting quality.

To test for the validity or otherwise of the hypotheses regarding the determinants of financial reporting quality of manufacturing firms quoted on the NSE, the following regression models have been formulated in consonance with the studies of Schneider *et al.*, (2010); Onwumere (2009), examining the relationship between a dependent variable and two or more regressors or independent variables have been adopted for the respective variables and hypotheses (Figure 1).

In order to ascertain the combined effect on the determinants of financial reporting quality of selected manufacturing firms quoted on the Nigeria Stock Exchange on the dependent variables, equation i, ii, iii, iv and v were compressed to linear regression models as shown below.

$$LogR = b_o + b_1 LogDFRQ + E, \qquad (6)$$
$$LogF = b_{10} + b_{11} LogDFRQ + E, \qquad (7)$$
$$LogU = b_{20} + b_{21} LogDFRQ + E, \qquad (8)$$
$$LogC = b_{30} + b_{31} LogDFRQ + E, \qquad (9)$$
$$LogT = b_{40} + b_{41} LogDFRQ + E, \qquad (10)$$

where:

R   relevance,
F   faithful representation,
U   understandability,
C   comparability,
T   timeliness,
FSIZE   firm size,
BODIN   board independence,
BSIZE   board size,
INSO   institutional ownership,
GOPP   growth opportunity,
DFRQ   determinants of financial reporting quality,
E   is the error term capturing other explanatory variables not explicitly included in the model, b_0 is the intercept of the regression and b_1, b_2 and b_3 are the coefficients of the regression.

4. Result and discussion

The data collected are presented in Table 1–8 and discussed below:

Figure 1. Variables and hypotheses.

Model 1:
$$LogR = bo + b_1 LogFSIZE + b_2 LogBODIN + b_3 LogBSIZE + b_4 LogINSO + b_5 LogGOPP + E \quad (1)$$
Model 2:
$$LogF = b_{10} + b_{11} LogFSIZE + b_{12} LogBODIN + b_{13} LogBSIZE + b_{14} LogINSO + b_{15} LogGOPP + E \quad (2)$$
Model 3:
$$LogU = b_{20} + b_{21} LogFSIZE + b_{22} LogBODIN + b_{23} LogBSIZE + b_{24} LogINSO + b_{25} LogGOPP + E \quad (3)$$
Model 4:
$$LogC = b_{3o} + b_{31} LogFSIZE + b_{32} LogBODIN + b_{33} LogBSIZE \, b_{34} LogINSO + b_{35} LogGOPP + E \quad (4)$$
Model 5:
$$LogT = b_{40} + b_{41} LogFSIZE + b_{42} LogBODIN + b_{43} LogBSIZE + b_{44} LogINSO + b_{45} LogGOPP + E \quad (5)$$

Table 1 shows the descriptive statistics of the conglomerates that make up our study sample. The mean value of financial reporting quality (FRQ) of the sampled companies while the median value was 0.0422. The maximum value of BSIZE value was 17 while the minimum was 4.

The above results show that there is a negative and positive (yet weak) association between financial reporting quality and its determinants (BSIZE/FRQ = 0.1247), (INOWN/FRQ = –0.0594) and (TOBIN Q/FRQ = 0.1049). This positive association supports the idea that the board size is

Table 1. Descriptive statistics results.

stats	frq	bsize	inown	tobinq	bodin	fsize
mean	3.264722	8	.647	.6956111	27.24722	6.865028
p50	4.5	9	.67	1	30	6.88
max	232.62	17	1	5	55	8.98
min	–188.95	4	0	0	1	4.84
N	720	720	720	720	720	720

Source: SMF Financial Statements (2012–2017) using Strata Output – Version 13.

Table 2. Correlation matrix.

	frq	bsize	inown	tobinq	bodin	fsize
frq	1.0000					
bsize	0.1247	1.0000				
inown	–0.0594	0.1066	1.0000			
tobinq	0.1049	0.2619	–0.0072	1.0000		
bodin	0.0566	0.0734	–0.0007	0.0699	1.0000	
fsize	0.2151	0.4333	–0.0781	0.1533	0.1025	1.0000

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

Table 3. Regression model.

Source	SS	df	MS			
				Number of obs	=	720
				F(5, 714)	=	8.32
Model	14625.8947	5	2925.17894	Prob > F	=	0.0000
Residual	250950.965	714	351.471939	R-squared	=	0.0551
Total	265576.859	719	369.369763	Adj R-squared	=	0.0485
				Root MSE	=	18.748

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
bsize	0.2310594	0.3233478	0.71	0.475	–0.4037668	0.8658857
inown	–5.669334	4.3996290	–1.29	0.198	–14.307090	2.9684220
tobinq	1.569421	0.8964892	1.75	0.080	–0.1906496	3.3294910
bodin	0.0567168	0.0676228	0.84	0.402	–0.0760465	0.1894800
fsize	4.415734	0.9757698	4.53	0.000	2.5000130	6.3314550
_cons	–28.09343	6.9723190	–4.03	0.000	–41.7821200	–14.4047300

Source: SMF Financial statements 2012–2017 using Strata output – Version 13.

weakly associated with financial reporting quality. As for the board independence (BODIN/FRQ = 0.0566), there was positive yet weak association between both variables. And in the case of the firm size (FSIZE/FRQ= 0.0.2151), there was positive and strong association between both variables.

In Table 3, we observed from the OLS panel regression that the adjusted R-squared reached the value of 0.04, which shows that about 4% of the systematic variations in the dependent variable in the studied companies over the period of interest was jointly explained by the independent variables. The unexplained part of the dependent variable can be attributed to the exclusion of very important independent variables which can explain the dependent variable but are outside the scope of this study. In testing our hypotheses, we provide the below specific analysis for each of the independent variables using the robust regression result. In terms of the decision level, if the significance value

is greater than 0.05, we accept the null hypothesis. If the significance value is less than or equal to 0.05, the null hypothesis is rejected.

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity:

Ho: Constant variance
Variables: fitted values of retoa
$chi2(1) = 474.86$
$Prob > chi^2 = 0.0830$

Ramsey RESET test using powers of the fitted values of retoa:

Ho: model has no omitted variables
$F (3, 711) = 40.56$
$Prob > F = 0.5500$

It can be observed that the OLS results had heteroscedasticity problem [474.86 (0.000) *] which was significant and which was corrected using the robust regression (Figure 2).

The results of the analysis show a mean VIF value of 1.14, which is less than the benchmark value of 10. This indicates the absence of multicolinearity, and this means no independent variable was dropped from the model (Figure 3).

The first hypothesis which states that the firm size has no positive and significant effect on financial reporting quality was tested with the support of simple ordinary least square (OLS) using Stata Version 13. Table 4 summarises the results for the firm size (FSIZE) and financial reporting quality

Figure 2. Robust regresion.

Variable	VIF	1/VIF
bsize	1.33	0.753240
inown	1.26	0.790674
tobinq	1.08	0.926316
bodin	1.03	0.968668
fsize	1.01	0.986052
Mean VIF		1.14	

Time variable not set, use-tsset varname ...–r(111).

Figure 3. Model.

Huber iteration 1: maximum difference in weights = 0.95484044
Huber iteration 2: maximum difference in weights = 0.36813173
Huber iteration 3: maximum difference in weights = 0.13212380
Huber iteration 4: maximum difference in weights = 0.03509135
Biweight iteration 5: maximum difference in weights = 0.29361162
Biweight iteration 6: maximum difference in weights = 0.10690809
Biweight iteration 7: maximum difference in weights = 0.03824452
Biweight iteration 8: maximum difference in weights = 0.02579889
Biweight iteration 9: maximum difference in weights = 0.00748673

Source: SMF Financial Statements 2012–2017
using Strata Output – Version 13.

Table 4. Summary results of the firm size effect on financial reporting quality.

Number of obs = 720

F(5, 714) = 7.53

Prob > F = 0.0031

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
fsize	0.538943	0.3850236	1.40	0.162	–0.2169707	1.294857
_cons	–4.284129	2.7511680	–1.56	0.120	–9.6854760	1.117217

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

Table 5. Summary results of the board independence effect on financial reporting quality.

Number of obs = 720

F(5, 714) = 7.53

Prob > F = 0.0005

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
bodin	0.020121	0.0266829	0.75	0.451	–0.0322653	0.0725073
_cons	–4.284129	2.7511680	–1.56	0.120	–9.6854760	1.1172170

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

Table 6. Summary results of the board size effect on financial reporting quality.

Number of obs = 720

F(5, 714) = 7.53

Prob > F = 0.0000

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
bsize	0.5608134	0.127588	4.40	0.000	0.3103208	0.8113059
_cons	–4.2841290	2.751168	–1.56	0.120	–9.6854760	1.1172170

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

(OLS Robust = .538 (0.162)); the firm size as an independent variable appears to have a positive yet insignificant impact on financial reporting quality. This therefore implies that we accept the null hypothesis; hence there is no significant relationship between the proportion of firm size and firm's financial reporting quality. This result corroborates the findings of Muhammad (2016) and contradicts the findings of Waidi, Johnson (2016); Shehu, Ahmad (2013).

In validating the second hypothesis, Table 5 shows the results for the board independence (BODIN) and financial reporting quality (OLS robust = .020 (0.451)). The board Independence as an independent variable appears to have a negative and insignificant influence on financial reporting quality. This therefore suggests that we reject the null hypothesis, implying that there is a significant relationship between the proportion of independent directors on the board and firm's financial reporting quality. This result corroborates the findings of Khaled, Mo'taz (2012); but is at variance with Brammer, Pavelin (2006); Said *et al.*, (2009), who discovered no relationship.

Furthermore, validating hypothesis three results from Table 6 shows the relationship of the board size (BSIZE) and financial reporting quality (OLS Robust = 0.560 (0.000) *). The board size as an independent variable measuring

determinants of financial reporting quality has a positive and significant influence on financial reporting quality at 1% level. This therefore indicates that we should accept the alternate hypothesis, implying that there is a significant positive relationship between the size of the board of directors and financial reporting quality. This result corroborates Bhattacharya, Graham (2016); Mohammadi (2014), who discovered that large companies provide superior information systems with additional information at no cost and these larger firms doing this have the incentive to show a positive effect on reporting quality. The findings however disagree with the findings of Rajan, Zingales (1998) and Hope *et al.* (2011).

Validating the fourth hypothesis, the results in Table 7 shows the relationship between the institutional ownership and financial reporting quality (OLS Robust = –0.765 (0.659)). The results indicate that we should accept the null hypothesis, implying that there is no significant relationship between the institutional ownership and financial reporting quality. The results are in line with the findings of Adebiyi, Olowookere (2016); Diniartika, Nafasiti (2013) and contradict the findings of Waidi, Johnson (2016); Shehu, Ahmad (2013). On the contrary, Waidi, Johnson (2016) concluded that managerial ownership, institutional ownership and foreign ownership improve the financial reporting quality of listed firms in Nigeria. Managerial ownership affects the information quality of earnings positively and consequently enhances the quality and value relevance of published financial data.

Finally, in validating the fifth hypothesis, the results in Table 8 show the relationship between the growth opportunity (measured by TOBIN Q) and financial reporting quality (OLS Robust =.130 (0.713)). This therefore means we should accept the null hypothesis, implying that there is no significant relationship between the growth opportunity and financial reporting quality. The finding is contrary to the empirical results of Hamidzadeh, Zeinali (2015); Babatunde, Babatude (2017), who found a negative relationship on sales growth and growth potential with its effect on financial reporting quality.

Table 7. Summary results of the institutional ownership effect on financial reporting quality.

Number of obs = 720

F(5, 714) = 7.53

Prob > F = 0.0010

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inown	–0.7653637	1.736025	–0.44	0.659	–4.173688	2.642960
_cons	–4.2841290	2.751168	–1.56	0.120	–9.685476	1.117217

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

Table 8. Summary results of the growth opportunity effect on financial reporting quality.

Number of obs = 720

F(5, 714) = 7.53

Prob > F = 0.0021

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
tobinq	0.130187	0.3537407	0.37	0.713	–0.5643092	0.8246833
_cons	–4.284129	2.7511680	–1.56	0.120	–9.6854760	1.1172170

Source: SMF Financial Statements 2012–2017 using Strata Output – Version 13.

Conclusion

The study concludes that the board size is positively associated with the firm's financial reporting quality and that large boards are associated with better firm's financial reporting quality, possibly through closely monitored management and robust decision making. The implication is that larger boards can increase the quality of collective control and decision-making by utilizing the diversities of knowledge and expertise in the board, hence increasing financial reporting quality.

Also, the study showed that the firm size, board independence, institutional ownership, and growth opportunity as the financial reporting quality indicators have no effect on financial reporting quality. These findings have implications for policy makers, researchers, managers, and investors. In general, larger boards size brings about a better financial reporting quality, as with the larger board bize, the more it accommodates virile and knowledgeable professionals and expertise in the monitoring and oversight responsibility.

References

Adams, R. B., Hermalin, B. E., Weisbach, M. S. (2010). The role of boards of directors in corporate governance: a conceptual framework & survey. *Journal of Economic Literature*, 48(1), pp. 58–107.

Adebiyi, W.K., Olowookere, J. K. (2016). Ownership Structure and the Quality of Financial Reporting: Evidence from Nigerian Deposit Money Banks. *International Journal of Economics, Commerce and Management*, 4(1), pp. 541–552.

Affan, M., Rosidi, Purwanti, L. (2017). The Effect of Ownership Structure on the Quality of Financial Reporting of Manufacturing Companies Listed in the IDX during the Period of 2013–2015. *Imperial Journal of Interdisciplinary Research,* 3(7), pp. 165–174.

Al Daoud, K. A., Ku Ismail, K N. I., Lode, N. S. (2015). The Impact of Internal Corporate Governance on the Timeliness of Financial Reports of Jordanian Firms: Evidence using Audit and Management Report Lags. *Mediterranean Journal of Social Sciences,* [S.l.], 6(1), 430 pp.

Anderson, R. C., Mansi, S., Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting & Economics (JAE)*, 37(3), pp. 315–342.

Atu, O. O. K., Atu, F. A., Enegbe, O. P., Atu, E.C. (2016). Determinants of earnings management in Nigerian quoted companies. *Igbinedion University Journal of Accounting,* (1), pp. 118–133.

Babatunde, J. A., Babatunde, A. A. (2017). Corporate Governance and Financial Reporting Quality in Nigeria. *International Journal of Information Research and Review,* 4(2), pp. 3749–3753.

Baxter, P. J. (2007). *Audit Committees and Financial Reporting Quality*. A Dissertation submitted to University of Southern Queensland for the award of Doctor of Philosophy.

Beaver, H. (2002). Perspectives on recent capital research. *The Accounting Review*, 77(2), pp. 453–474.

Beest, F., Braam, G., Boelens, S. (2009). *Quality of Financial Reporting: Measuring qualitative characteristics*, NICE.

Bhattacharya, P. S., Graham, M. (2016). Institutional Ownership and Firm Performance: Evidence from Finland. *Journal of Accounting and Economics*, 21(7), pp. 1–26.

Brammer, S., Pavelin, S. (2006). Voluntary environmental disclosures by large UK companies. *Journal of Business Finance and Accounting,* 33(7), pp. 1168–1198.

Callao, S., Jarne, J. I., Laínez, J. A. (2007). Adoption of IFRS in Spain: effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation*, 16(2), pp. 148–178.

Coad, A. (2009). *The Growth of Firms: A Survey of Theories and Empirical Evidence Northampton*, MA: Edward Elgar.

Coase, R. H. (1937). The Nature of the Firm. *Economica, New Series,* 4(16), pp. 386–405.

Cornett, M., A., Marcus, A., Saunders, A., Tehranian, H. (2005). *The Impact of Institutional Ownership on Corporate Operating Performance.* New York University working paper.

Daske, H., Gebhardt, G. (2006). International financial reporting standards and expert's perceptions of disclosure quality. *Abacus,* 42(3–4), pp. 461–498.

Dechow, P., Dichev, I., (2002). The quality of accruals and earnings: the role of accrual estimation errors. *The Accounting Review,* 77 (Supplement), pp. 35–59.

Delmar, F. (1997). Measuring growth: Methodological considerations and empirical results. In Reynolds, P. D., Bygrave, W. D. Manigart, S., Mason, C., Meyer, G. D., Sapienza, H. J., Shaver, K. G. (Eds.). *Frontiers of Entrepreneurship Research,* 1997, 19, pp. 90–104.

Diniartika, M., Nafasati, F. P. (2013). Analisis Pengaruh Struktur Kepemilikan, Praktik Corporate Governance, dan Kompensasi Bonus Terhadap Manajemen Laba pada Perusahaan Manufaktur Yang Terdaftas Di BEI. *Sistem Informasi Jurnal Ilmiah USM*, 11(4), pp. 29–40.

Gajevszky, A. (2015). Assessing financial Reporting Quality: Evidence from Romania. *Audit Financiar,* 8(4), pp. 1583–5812.

Geroski, P. A. (1995). What do we know about entry. *International Journal of Industrial Organization*, 13, pp. 421–440.

Gillan, S. L. (2006). Recent developments in corporate governance: an overview. *Journal of Corporate Finance*, 12(3), pp. 381–402.

Hamidzadeh, H., Zeinali, M. (2015). The Sales Growth and Growth Potential Effect on Financial Reporting Quality at Listed Companies in Tehran Stock Exchange. *Arabian Journal of Business and Management Review,* 4(7), pp. 115–120.

Holthausen R. W., Watts R. L. (2001). The relevance of value relevance literature for financial accounting standard setting. *Journal of Accounting and Economics*, 38(1–3), pp. 117–128.

Hope, O., Thomas, W., Vyas, D. (2011). *Financial Reporting Quality in U.S. Private Firms*.

Jensen, M. C. (1993). The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance*, 48(3), pp. 831–880.

Jonas, G., Blanchet, J. (2000). Assessing quality of financial reporting. *Accounting Horizons*, 14(3), pp. 353–363.

Khaled, E. A., Mo'taz A. A. (2012). The Impact of Good Corporate Governance Practices on Financial Reporting Quality: Empirical Evidence from Jordanian Listed Companies. *Corporate Ownership and Control, 9*(4–1), pp. 178–186. DOI:10.22495/cocv9i4c1art4.

Klai, N., Omri, A. (2011). Corporate Governance and Financial Reporting Quality: The Case of Tunisian firms, *International Business Research*, 4(1), pp. 145–163.

Klein, B., Crawford. G., Alchian, A. A. (1978). Vertical Integration, Appropriable Rents, and the Competitive Contracting Process. *Journal of Law and Economics,* 21(2), pp. 297–326.

Lee, Y. W., Strong, D. M., Kahn, B. K., Wang, R. Y. (2002). AIMQ: a methodology for information quality assessment. *Information and Management*, 40, pp. 133–146.

Maug, E. (1998). Large Shareholders as Monitors: Is there a trade-off between liquidity and control. *Journal of Finance,* 53, pp. 65–98.

McDaniel, L., Martin, R., Maines, L. (2002). Evaluating financial reporting quality: The effects of financial expertise vs. financial literacy. *The Accounting Review*, 77, pp. 139–167.

Mohammadi, S. M. (2014). The Relationship between Financial Reporting Quality and Investment Efficiency in Tehran Stock Exchange. *International Journal of Academic Research in Business and Social Sciences,* 4(6), pp. 104–113.

Muhammad, T. (2016). Firm Structural Characteristics and Financial Reporting Quality of Listed Deposit Money Banks in Nigeria. *International Business Research,* 9(1), pp. 106–122.

Nelson, R. R., Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Belknap Press of Harvard University Press.

Nwaobia, A. N., Kwarbai, J. D., Jayeoba, O. O., Ajbade, A. T. (2016). Financial Quality on Investors'

Decision. *International Journal of Economics and Financial Research,* 2(7), pp. 140–147.

Onuorah, A. C., Imene, O. F. (2016). Corporate Governance and Financial Reporting Quality in Selected Nigeria Company. *International Journal of Management Science and Business Admission,* 2(3), pp. 7–16.

Onwumere, J. U. J. (2009). *Business and Economic Research Methods.* Enugu Vougwen Limited.

Rajan, R. G., Zingales, L. (1998). Financial Dependence and Growth. *The American Economic Review*, 88(3), pp. 559–586.

Renkas, J., Goncharenko, O., Lukianets, O. (2016). Quality of financial reporting: Approaches to measuring. *International Journal of Accounting and Economics Studies,* 4(1), pp. 1–5.

Said, R. S., Zainuddin, Y. H., Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal,* 5(2), pp. 212–226.

Schneider, A., Hommel, G., Blettner, M. (2010). Linear Regression Analysis Part 14 of a Series on Evaluation of Scientific Publications. *Dtsch Arztebl International*, 107(44), pp. 776–782. DOI: 10.3238/arztebl.2010.0776.

Shehu, U. H, Ahmad, B. (2013). Firm characteristic and financial reporting quality of listed manufacturing firms in Nigeria. *International Journal of Accounting, Banking and Management,* 1(6), pp. 47–63.

Tang, Q, Chen, H., Zhijun L. (2008). *Financial reporting quality and investor protection: a global investigation, Working Pape*r.

Waidi, O., Johnson, B. (2016). Ownership structure and the quality of financial reporting: Evidence from Nigeria Deposit Money Banks. *International Journal of Economics, Commerce and Management,* iv(1), pp. 541–552.

Williamson, O. E. (1986). *Economic Organization: Firms, Markets and Policy Control*. Brighton: Wheatsheaf, 1986, xviii pp.

Carl Madawa Seiyaibo, FCA, M. Sc, MBA
Office of the Accountant General
Treasury Building
Lambert Eradiri Road, Onopa
Yenegoa, Bayelsa State
Nigeria
Phone: +234 803 423 6054
E-mail: carlseiyaibo@yahoo.com

Emma Ikechukwu Okoye, **Ph. D, CNA, MBA**
Nnamdi Azikiwe University, Awka, Nigeria
Faculty of Management Sciences
Department of Accountancy
P.M.B 5025, Awka
Nigeria
Phone: +234 803 383 7919
E-mail: ebyemma2006@yahoo.com