



Firm's Market Structure and Financial Reporting Quality in Nigerian Quoted Companies

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Authors' contributions

This work was carried out in collaboration between both authors. Author JAO designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author ELD managed the analyses of the study. Author ELD managed the literature searches. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2018/33576

Editor(s):

(1) Dr. Paulo Jorge Silveira Ferreira, Superior School of Agriculture of Elvas (Polytechnic Institute of Portalegre), Portugal.

Reviewers:

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(3) Osei Abraham, University of Electronic Science and Technology of China, China.

Complete Peer review History: <http://www.sciencedomain.org/review-history/27290>

Original Research Article

Received 01 March 2017

Accepted 08 May 2017

Published 17 November 2018

ABSTRACT

This study examines the relationship between firm's market structure and financial reporting quality in Nigerian listed companies. Data were sourced from the annual reports and accounts of sampled companies quoted on Nigerian Stock Exchange (NSE) between 2010 and 2014. Firm's market structure was operationalized by the factor score/index of audit firm size and industry type. Discretionary accruals, the dependent variable used as a measure for financial reporting quality was operationalised using the modified Jones model. The results of the Ordinary Least Square (OLS) regression with fixed effects of market variables supported by factor indices showed that firm's market structure had significant impact on financial reporting quality. Based on these findings, it was recommend that regulators of the accounting and auditing professions should put in measures that would encourage small audit firms to grow through merger and acquisitions, in order for them to be able compete with the Big-4 audit firms and reduce capital flights resulting from the profits taken by the foreign partners.

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Keywords: Firm; market structure; financial reporting quality; industry type; firm's size.

1. BACKGROUND TO THE STUDY

Corporate report, the major channel through which managers of corporations communicate with the owners of a business for the resources entrusted to their care provide various users with the appropriate and dependable information required for making informed decisions.

The usefulness of financial reports in assisting users to take decision globally and Nigeria in particular has become questionable due to corporate accounting scandals arising from weak quality of corporate reporting. Some of these accounting frauds and financial abuses extensively reported during the last decade include: Enron, World com, Xerox, Global Crossing, Tyco (USA); Parmalat (in Italy); and in Nigeria Union Dicon Salt, Unilever, Cadbury and the suspension of the operating licenses of five banks by the Central Bank of Nigeria (CBN) in 2011 [1].

The seemingly widespread failure of the corporate financial information to meet the requirements of various users have led to desirability for improvement in the quality of corporate reporting. The regulatory authorities and the accounting profession are making concerted efforts both at the national and transnational levels to improve the quality of financial reporting. For instance, the introduction of international financial reporting standards (IFRS) by international accounting standard board (IASB) in 2001 and the subsequent adoption in Nigeria in 2012 are bold attempts to enhance the value of financial information [1]

In spite of the joint efforts by the global financial community to improve the quality of financial reporting, which culminated in the introduction of IFRS and its subsequent adoption by a considerable number of countries, the spate of corporate abuse and frauds still continues on a global scale. For instance, in 2013, the operating license of Banco Espirito, a giant financial institution in Portugal was withdrawn by Portugal's financial regulators after the bank was discovered to have been involved in severe financial irregularities [2]. Also in 2014, GlaxoSmithKline (GSK) or Glaxo China, after months of an investigation was also found to have been involved in widespread corporate fraud to the tune of £320m [2].

While some studies have linked low quality of financial reporting with the influence of poor firm structure and weak corporate governance mechanisms [3,4], to date and to best of our knowledge, no studies have examined the influence of the aggregate impact of firm's market variables on quality of financial reporting in Nigeria. Therefore, a study that examines the relationship between the firm's market structure and financial reporting quality becomes imperative especially in an emerging economy like Nigeria, which no doubt needs a massive inflow of foreign investments. The potential investors will need high-quality financial statements to aid their investment decisions. Consequently, the need for a study that expands the frontier of the knowledge of the quality of financial reporting and its determinants in Nigeria becomes necessary.

Attempts have been made at the national and international levels to understand empirically the relationship between firm's characteristics and financial reporting quality with a view to reducing the spate of corporate frauds through the production of high-quality financial reports [5-9]. These studies lumped together variables from different aspects of firm's characteristics. To the best of our knowledge, only a handful of these studies focused on variables from a particular aspect of firm's characteristics. This current study, therefore, centred on market structure aspect of firm's characteristics by examining the aggregate impact of firm's market variables on financial reporting quality. The present study is a radical departure from previous empirical studies carried out in the developed and developing economies including Nigeria that examined the relationship between firm's market structure and financial reporting quality by focussing on the impact of the individual components of firm's market variables.

Given the above scenario, the major problem this study sets to address is the nature of the relationships that exists between FRQ and firm's structure in Nigeria. The study attempts to ascertain and establish whether there are significant relationships between FRQ and firm's market structure in Nigeria. From the preceding issues raised, the question of concern in this study is what is the nature of the relationship that exists between firm's market structure and financial reporting quality in Nigeria?

The objective of this study therefore, is to examine whether a significant relationship exists between FRQ and firm's market structure of companies quoted on the Nigerian Stock Exchange.

The hypothesis formulated for the study in guiding answers to the above question is that there is no significant relationship between firm's market structure and financial reporting quality of quoted companies in Nigeria.

The study was restricted to companies quoted and active on the floor of the Nigerian Stock Exchange (NSE) between 2010 and 2014. The choice of this period is necessitated by the fact that Nigeria started the implementation of International Financial Reporting Standards (IFRS) in 2012. The study therefore focuses on equal periods before and after the introduction of IFRS.

This study contributes to literature by using Nigerian data to examine the aggregate influence of the firm's structure variables on financial reporting quality, a departure from previous studies that focused on the influence of the individual variables. The results of this current study provide a new dimension to the relationship that exists between the aggregate influence of firm's structure variables and FRQ in Nigerian quoted companies.

The few studies that have examined the relationship between firm's characteristics and FRQ in Nigeria focused on a limited sector of the economy. For example, studies by Shehu and Ahmed [8,7] on the determinants of FRQ in Nigeria focused solely on the quoted firms in the manufacturing and the banking sectors respectively. However, this study comprises of companies from over twelve sectors as listed in the Nigerian Stock Exchange (NSE). Consequently, this study, with enlarged samples, produced a more robust, valid and better generalizable results.

Above all, the study contributes to knowledge by expanding the existing literature on financial reporting quality and its determinants. The findings will be of immense value to the regulatory bodies such as Financial reporting Council of Nigeria (FRCN), the accounting and auditing professions in formulating policies that would improve financial reporting quality of quoted companies in Nigeria.

A major limitation of this current study is the use of mainly financial data contained in the annual

reports of the sample companies to the exclusion of non-financial information in the annual report in terms of enhancing qualitative characteristics that have been specified by IASB [10].

2. LITERATURE REVIEW

2.1 Financial Reporting Quality (FRQ) Concept

Financial reporting quality is a broad and multifaceted concept because there is no agreement among researchers about its meaning and concept. The complexity arises from the fact that overall accounting quality is affected by accounting laws and standards and their characteristics, companies' accounting policies, disclosure requirements, disclosure practices, and the investors' assessment of accounting information.

Owing to the broad nature of the subject of quality of financial reporting, several definitions of the term 'financial reporting quality' have been given, based on the objectives of the researcher. For example, [11] conceptualises financial reporting quality as the exactness with which corporate financial reports inform equity investors about a firm's operational activities, particularly its cash flows. Tang [12] describes financial reporting quality as the degree to which corporate reports provide accurate information about the operational performance and financial position of an entity.

Financial reporting quality is sometimes referred to as accounting quality or earnings quality [13]. Schipper and Vincent [14] define financial reporting quality as the extent to which the financial statement information reflects the essential economic situation of the reporting entity. In particular, Dechow [13] define earnings quality based on Statement of Financial Accounting Concepts No. 1 (SFAC No. 1) as "Higher quality earnings that provide additional information about the attributes of firm's financial performance and are relevant to a particular decision made by specific decision-maker. From the definition of earnings quality, Dechow [13] indicate that financial reporting quality is dependent on the relevance of the financial information to a particular decision maker. Furthermore, the quality of reported earnings depends on whether it is informative about the firm's fundamental financial performance and the accounting system has the ability to measure financial performance.

Nkundabanyanga [15] views the quality of financial reporting as the preparation and presentation of financial statements that are reliable and provide accurate, trustworthy information to shareholders, creditors, employees and public. The quality of financial statement has also been defined as providing information that is fit for use to users such as shareholders, creditors, financial analysts, government agencies, labour unions, management, employees, customers and general public [16]. From a different perspective to the definitions above, [17] define financial reporting quality as the correctness with which financial statements provides information about future cash flows of an entity to investors.

Financial reporting quality has been conceptualised from two broad perspectives. Jonas and Blanchet [18] identified the two common perspectives extensively used to conceptualise the quality of financial reporting as the users' needs and the investors' protection perspectives. From the investors' protection view point, Jonas and Blanchet [18] define quality financial reporting as a complete and transparent financial information that does confuse or misinform users.

In this study, we conceptualise financial reporting quality from the general purpose perspective, and it is viewed as the extent to which financial reporting is free of manipulations, accurately reflects the financial conditions and operating success of a business enterprise and complies with regulatory standards. In other words, the quality of accounting information is determined by how well accounting captures various aspects of the business activities.

2.2 Market-Related Variables and Financial Reporting Quality

Market-related variables refer aspects of a firm's behaviour brought about by the company's association with other enterprises in the operating environment. Market-related variables may be qualitative, quantitative, time-period specific and relatively stable over time, which may be within or outside the control of the firm. The market-related variables used in this study are qualitative in character and categorical. They differ from the structure, performance and governance-related variables which take quantitative values in a well-defined scale. These variables discussed below include audit firm size and industry type.

2.2.1 Audit firm size and financial reporting quality

Although the obligation for the production of corporate reports rest with management, from the literature auditors may have an influence on the reporting practices and policies of their client's companies. The size of a company's audit firm and / or its international link is believed to influence the value of information in annual reports. It is expected that in countries where the Big-4 audit firms operate, financial statements certified by any Big-4 firm have higher quality than those audited by non-Big-4 firms. Studies on audit delays have revealed that clients of larger audit firms publish their accounts much earlier than those of smaller audit firms. DeAngelo [19] argued that larger audit firms invest more to maintain the reputation of their audit quality.

Specifically, it has been proposed that large and well-known audit firms may influence companies to increase the credibility of their financial information through the disclosure of more information [20]. Different explanations have been put forward to justify the relation between financial reporting quality and audit firm size.

DeAngelo [19] asserts that auditor size and quality are strongly correlated, noting that the reputation and integrity of large audit firms would diminish if they certified correct the accounts of companies that contain errors, frauds and irregularities. Hence, large audit firms encourage their clients to disclose the greater amount of information in their corporate reports.

The second argument in support of a relationship between the type of auditor and quality of accounting information is the economic dependence theory. In support of this theory, Malone et al. [21] note that small audit firms are often more sensitive to client demands because they stand to suffer more in the case of client lost. The sensitivity of small firms to the demands of clients implies an economic dependency and may lead to hesitation to report a lack of compliance with statutory disclosure requirements. In contrast, large audit firms have a lower economic dependency on a particular client and are more likely to report non-compliance with reporting regulations.

Another argument in favour of the proposition of the existence of relationship between the type of auditor and quality of financial reporting is based

on agency theory [22,23]. They suggested that auditors have significant input in limiting opportunistic behaviour by agents, thereby reducing the agency costs borne by principals and agents. It has been argued that companies engaging large audit firms are those that have large agency costs which they attempt to reduce by contracting with these audit firms [24]. Hence, it is expected that when agency costs are substantial, there is an increased demand for the audit services of large firms, with a consequential effect on disclosure quality.

Furthermore, audit firms may use the information disclosed by their clients as a means of signalling their quality [24]. Large audit firms are very critical about their image and therefore, require high-quality financial reports from their clients [9]. Thus, consumers of Big-4 audit firms are likely to report high quality of accounting information. Although some studies found a significant positive association between auditor size and the quality of financial reports [20,24,25,6,26], others found an insignificant association between auditor size and financial reporting [27,9,28,5].

In the present study, the size of the audit firm of the sample companies will be determined by whether or not the sample company was audited by any of the Big-4 (Deloitte, Ernest & Young, KPMG, and Price Waterhouse Coppers) in the country.

Based on the theoretical and empirical evidence outlined above and given that in Nigeria the distinction between the Big-4/non-Big-4 is a well-established dichotomy for audit size and quality, it is important that the behaviour of this variable is empirically tested in Nigerian environment. Consequently, a positive association is expected between audit firm size and FRQ in Nigerian quoted companies.

2.2.2 Industry type and financial reporting quality

Industry type is another market-related variable that has been investigated by researchers. The quality of reporting may vary according to industry type. The perception that the quality of financial reporting is likely to differ across different industries is widespread. One reason is the existence of industry-specific factors, such as the complexity and nature of operations in certain industries such as conglomerates, financial services, and agricultural sectors. For example, a company with diversified interests seems likely to

have a considerable volume of financial information to report than an undiversified one [29]. Additionally, it can be argued that a multiproduct company operating in a number of geographical or business segments, is more likely to have an efficient management information system for managerial control than a single product company operating in a particular market segment. It is, therefore, possible that some of the available information is also disclosed in the enterprise's corporate reports to meet the needs of financiers, suppliers, customers, analysts and the public in general.

Also, the dominant firm argument can be used to explain why a company's reporting practices may influence the disclosure policies of other enterprises in similar sector [30]. For example, a nationally dominant firm with a high financial reporting quality within an industrial sector may have a direct impact on the quality of reporting adopted by other companies in that industry [31]. Similarly, the dominant company might have set a precedent of low reporting that may be followed by other firms entering that industry.

Watts and Zimmerman [23] have also used the political and proprietary costs theories to explain the relationship between the industry type and financial reporting quality. Additionally, companies operating in similar industrial sector have interests in producing the same level of reporting to avoid being negatively appreciated by the market (competitive pressures). This argument is in line with the signalling, legitimacy and institutional theories because some industries have higher institutional pressures than others.

The findings of earlier researches on the relationship between financial reporting quality and industry type are inconclusive. For example, [32] found that the financial reporting quality in Swedish trading companies is lower than other industry types. Cooke [31] demonstrated that Japanese manufacturing companies produce quality accounting information than others. Wallace and Naser [33] also reported that Hong Kong conglomerate companies tended to provide a high-quality of accounting information in their annual reports. Although, various researchers [34,31,35] had reported a significant relationship between industry and financial reporting quality, other reported no significant association [36,27,37,9]. These inconsistencies may be attributed to the different definitions of industry classifications used by the authors [38] and also

to the differences in the socio- economic environment where these studies were conducted.

Since theoretical and empirical findings do not define the direction of the relationship between FRQ and industry clearly, industry type is to be tested empirically in this study to ascertain its relationship with FRQ in an emerging nation like Nigeria. Consequently, our expectation is that there is a significant positive association between industry type and the quality of financial reports in Nigeria public corporation.

3. METHODOLOGY

3.1 Research Design, Population and Sample

This study used longitudinal balanced panel data from secondary sources only because it is a quantitative concept and the core of the data needed for analysis were adequately and conveniently extracted from the audited financial reports of the selected firms for the period of the study. Multiple regression was adopted to examine the model of the study. Longitudinal panel data was used to account for individual heterogeneity of the sample companies with the utilization of two steps regression in determining the quality of financial reports of the Nigerian quoted firms adopting the modified Jones (1991) model.

The population of the study includes all the 189 firms quoted on the Nigerian Stock Exchange as at 31st December 2014.

The study focused on 60 companies listed on the Nigerian Stock Exchange during the period- 2010 to 2014. The sample size was limited to 60 companies because of non-availability of data for some companies. Missing data problems according to [39] are peculiar with almost all databases, but worse in developing economies. Panel data were used to overcome the problems associated with missing data in line with [39]. The firms were selected based on the following criteria:

- (i) The company must have complete records of all the required data for the period 2010-2014
- (ii) The firm was on the trading schedule of the Nigerian Stock Exchange (NSE) as at the last day of its accounting year end in 2014.

Given the nature of the model used in this study and the above criteria a filter was employed to eliminate the firms that have no complete records of all the data needed for measuring the variables of the study within the period (2010-2014). Consequently, 81 firms were eliminated. The second filter eliminated 48 firms that have disappeared from the trading schedule of NSE as at the last day of their accounting year end in 2014. The remaining 60 companies that met both criteria were used as samples in the study resulting in a total 300 company-year observation.

3.2 Data Type and Source

The study used the secondary type of data extracted from annual reports and accounts of sample companies.

3.3 Measurement of Variables

3.3.1 Dependent variable (financial reporting quality)

In this study, we employed discretionary accruals to measure financial reporting quality. Discretionary accruals are used in many studies such as Jones [40,41] to measure the quality of financial reporting. Basically, discretionary accruals are equal to the difference between total accruals and non-discretionary accruals.

Dechow et al. [42] provided evidence that the modified Jones model is the most powerful model to measure discretionary accruals. Thus, we employed the modified Jones [40] as used by Dechow et al. [42] to obtain discretionary accruals from the regression of total accruals on changes in sales and property, plant, and equipment within industries as follows:

$$\frac{TA_t}{A_{t-1}} = \beta_1 \left(\frac{1}{A_{t-1}} \right) + \beta_2 \left(\frac{\Delta REV - \Delta REC}{A_{t-1}} \right) + \beta_3 \left(\frac{PPE}{A_{t-1}} \right) + \varepsilon_t \quad (3.1)$$

Where:

TA_t = total accruals in year t ,
 A_{t-1} = Total assets in year $t - 1$ for firm i ;
 ΔREV_{it} = Revenues in year t less revenues in year $t - 1$ for firm i ;
 ΔREC_{it} = Net receivables in year t less net receivables in year $t - 1$ for firm i ;
 PPE_{it} = Gross property, plant and equipment in year t for firm i ;

$\varepsilon_{i,t}$ = Error term in year t for firm i .e. residual which represents the discretionary portion of total accruals.

β_1, β_2 and β_3 , denote the industry specific ordinary least square (OLS) parameters. The estimates of the industry-specific parameters, β_1, β_2 and β_3 , were used to determine the non-discretionary accrual for each company using the following modified Jones (1991) model.

$$NDA_t = \beta_1 \left(\frac{1}{A_{t-1}} \right) + \beta_2 \left(\frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \beta_3 \left(\frac{\Delta PPE_t}{A_{t-1}} \right) \quad (3.2)$$

Where:

NDA_t is the non-discretionary accruals in year t scaled by lagged total assets

ΔREV_t is revenues in year t less revenues in year $t-1$

ΔREC_t is net receivables in year t less net receivables in year $t-1$

PPE_t is gross property plant and equipment at the end of year t

A_{t-1} is total assets at the end of year $t-1$; and

$\beta_1, \beta_2, \beta_3$ are industry-specific parameters for each company.

In line with prior research [43,40], we used the cash flow approach to compute total accruals as follows:

$$TA_{i,t} = NIBE_{i,t} - CFO_{i,t}$$

$NIBE_{i,t}$ = company i 's net income before extraordinary items in year t

$CFO_{i,t}$ = company i 's net cash flow from operations in year t

The equation below was used to measure the discretionary accruals.

$$TA_t = DA_t + NDA_t$$

TA_t = Total Accruals;

DA_t = Discretionary Accruals;

NDA_t = Non-discretionary Accruals

3.3.2 Independent variables

This study used two variables as proxies for firm's market structure. The variables include audit firm size and industry type. The selected variables are those, based on the prior literature, and the appropriate theories are relevant to financial reporting quality in Nigeria quoted companies. These variables and their measurement constructs are presented in table 1 below.

3.3.3 Model specification

In specifying the models for this study, the financial reporting quality is posited to be a function of market structure variables. This can be expressed in explicit and implicit forms in equations 3.3 and 3.4 respectively.

$$FRQ = f(AFSIZE, INDTYPE) \quad (3.3)$$

In econometric form, equation (3.3) can be stated as:

$$FRQ_{it} = \beta_{0it} + \beta_1 AUDFSIZE_{it} + \beta_2 INDTYPE_{it} + e_{it} \quad (3.4)$$

Where:

FRQ = Financial Reporting Quality

β_0 = Intercept

$\beta_{1,2}$ = coefficient of the independent variables

$AFSIZE$ = Audit firm size

$INDTYPE$ = Industry type

e = error term, i = firm and t = year

Table 1. Summary of variables and their measurements

| Symbol | Variable | A priori sign | Operationalisation |
|---------|------------------------------|---------------|--|
| | Dependent Variable | | |
| FRQ | Financial reporting quality | | Modified Jones (1991) model |
| | Independent variables | | |
| AFSIZE | Audit firm size | + | A dummy variable of one for companies audited by any of the big four and zero otherwise |
| INDTYPE | Industry type | + | A dummy variable of one for companies in the financial sector and zero for other companies |

4. PRESENTATION AND ANALYSIS OF DATA

4.1 Results of Analysis

The regression results of the independent variables of market related variables (discretionary accrual used as a proxy for financial reporting quality) are presented and analysed below:

Table 2 above shows the regression results of the relationship between firm's market structure variables and financial reporting quality applying a combination of OLS and GLS estimation techniques. Three firm's market structure variables (AFSIZE, INDTYPE, and MK-index) were regressed on discretionary accruals used as a measurement metric for financial reporting quality.

The model results using the GLS-FE (fixed effects) disclose a coefficient of determination (R^2) of 0.599 and ADJ R^2 of 0.423. These values imply that the market structure model explains about 59.9% of systematic variations in discretionary accruals with an adjusted value of 42.3% after controlling for degrees of freedom. The F-stat value of 4.109 and P(f-stat) of 0.00 indicate the acceptance at 5% level of the alternate hypothesis of a significant linear relationship between the variables of FRQ and DACC while the D.W statistic of 2.2 indicates the absence of a serial correlation in the residuals of the model. From the structural coefficients of the model, none of the variables appear significant at 5%.

Regressing the firm's market structure index (MK-index) on DACC using factor scores, measured by the linear combination of AFSIZE and INDTYPE, the model coefficient of determination (R^2) of 0.564 suggests that 56.4% of systematic variations in discretionary accruals is explained by the MK-index with an adjusted value of 42.8. The F-stat (4.155) and P-value (0.000) implies that the alternative hypothesis of a significant linear relationship between the variables (dependent and independent) cannot be rejected at 1% level while the D.W statistic of 2.20 indicates the absence of a serial correlation of the residuals in the model. From the structural coefficient, the effect of MK-index on DACC is negative (-0.0131) in line with a priori expectation and significant at 5% ($p=0.001$).

4.2 Testing of Hypothesis

Using the principal content analysis (PCA), the factor score/index generated from a linear combination of the variables of firm's market structure, supported by the GLS (fixed effects) regression results were employed in testing the hypothesis of this study. When there was a conflict between the two, the factor index took precedence. The robust regression results were not used for the testing of the hypothesis because they are superior to those of OLS regression in situation where the data are not normally distributed [44]. In this study the data are normally distributed as confirmed by the normally test conducted.

The hypothesis in this study states that there is no significant relationship between firm's market structure and financial reporting quality in Nigeria quoted companies.

For the testing of stated hypothesis, the coefficient of the impact of GLS-FE (fixed effects) regression of the two market variables (Audit firm size and Industry type) and firm's market structure index (MK-index) on DACC as shown in Table 2 above were employed. The results show that the impact of AFSIZE on DACC is positive (0.112) and insignificant at 5% level ($p=0.311$) while the effect of INDTYPE on DACC is also positive (0.971) and insignificant at 5% ($p=0.405$) in line with theoretical expectation. These results suggest that industry type (INDTYPE and audit firm size (AFSIZE) have no significant relationship with financial quality in Nigerian companies.

However, the results of the regression of market index (MK-index) on DACC, the proxy for financial reporting quality, is negative (-0.013) and significant at 5% ($p=0.001$) in line with a priori expectation. The MK-index was derived from a linear combination of (INDTYPE and AFSIZE) using factor analysis. The results of a significant relationship at 5% level ($p=0.001$) between the firm's market index and DACC, the proxy for financial reporting quality, suggest that firm's market structure has a significant relationship with financial reporting quality of quoted companies in Nigeria. Based on these results, we reject the null hypothesis of no significant relationship between firm's market structure and financial reporting quality in Nigerian quoted companies.

Table 2. Firm's market-related variables (MK) and financial reporting quality regression results

| Variable | A (OLS) | B (OLS) | C (GLS-FE) | D (GLS-RE) | E (GLS) |
|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| C | 0.0105 {0.005} (0.023) | -0.0062 {0.000} (0.355) | -0.0153 {0.011} (0.176) | -0.002 {0.026} (0.294) | 0.0052 {0.000} (0.3081) |
| INDTYPE | -0.0314 {0.007} (0.000) | | 0.971 {6.482} (0.405) | -0.0505 {0.029} (0.092) | |
| AFSIZE | | 0.014 {0.008} (0.115) | 0.112 {0.053} (0.311) | 0.026 {0.024} (0.294) | |
| MK-factor score | | | | | -0.0131 {0.005} (0.001) |
| AR(1) | | | | | |
| R ² | 0.0358 | 0.009 | 0.599 | 0.1035 | 0.5636 |
| ADJ R ² | 0.032 | 0.006 | 0.423 | 0.057 | 0.428 |
| F-Stat | 9.397 | 2.506 | 4.109 | 1.7355 | 4.155 |
| P(f-stat) | 0.000 | 0.110 | 0.000 | 0.178 | 0.000 |
| D.W | 1.74 | 1.70 | 2.20 | 1.90 | 2.20 |
| Hausman test: 0.002 | | | | | |

Source: Researcher's Computation (2015)

() indicates p-values and { } indicates standard errors

Where; INDTYPE= Industry type, AFSIZE= Audit firm size, MK-factor score = Market index using factor scores.

4.3 Discussion of Findings

A significant relationship between firm's market structure and financial reporting quality in quoted companies in Nigeria was confirmed by the empirical evidence from the test of the hypothesis. The R² (0.559) which is the multiple coefficient of determination indicates that 55.9% of the total variations in discretionary accruals (DAAC) of the sampled quoted companies in Nigeria is collectively explained by INDTYPE and AFSIZE. Although, the joint impact of the two variables measured by their market factor score (MK- index) was the basis for the testing of the hypothesis, it is imperative that the detail impact of these variables from their individual perspectives on the quality of financial reporting is discussed.

From the GLS (fixed effects) regression model INDTYPE was found positively, but not significantly associated ($r = 0.971$, $p = 0.405$) with the DAAC of the sample companies. The positive coefficient ($r = 0.971$) indicates that INDTYPE has a negative and insignificant association with the quality of financial reporting in Nigerian quoted firms. The implication of the negative insignificant relationship between INDTYPE and quality of financial in Nigerian quoted companies is that the industrial category a firm belongs has no significant impact on the quality of its corporate reports in Nigeria. This finding may be

attributable to the different bases used in the classification of companies into industrial sectors in Nigeria. The financial and non-financial sectors used for classifying companies in this study are subject to different regulations in Nigeria.

In respect of the other market variable, the GLS (fixed effects) regression model reported a positive and insignificant relationship ($r = 0.112$, $p = 0.311$) between DAAC and AFSIZE indicating that audit firm size has a negative and insignificant impact on the quality of corporate reporting in Nigeria. The general contention by [27] that Big-4 audit firms, because of their international status, influence the annual reports and accounts of their clients and are more proficient in providing auditing services than the local auditing firms is contradicted by the finding of this study. The proposition by Alsaeed [9] that international audit firms are more concerned about their names and therefore, require higher quality of reporting from their clients compare to their local counterparts is also contrary to the finding of this study. The possible explanation for this finding is that globalisation of accounting and auditing practices have subjected auditing firms whether local or international to uniform auditing standards and practices, thereby eroding the strategic advantages the Big-4 auditing firms hitherto had over the local auditing firms.

Although, a significant relationship between market composition and financial reporting quality in quoted companies in Nigeria was confirmed by the empirical evidence from the test of the hypothesis, a review of the prior studies that have investigated the impact of the individual components of the firm's market variables on financial reporting quality (FRQ) have shown considerable diversity in the directions of the relationship. The finding of an insignificant relationship between audit firm size and FRQ is supported by some studies such as [27,9,28,5] while contrary results have been reported by Singhvi and Desai [20,24,25,9,6].

In relation to industry type, our finding of an insignificant relationship between it and FRQ contradicts the results of [24,31,35,] who reported a significant relationship and those of [35,26,36,9] that reported no significant association.

5. SUMMARY OF FINDINGS, CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Summary of Major Findings

The result from the descriptive statistics implies that majority of the companies in the sample were audited by the Big-4 audit firms. This may be related to the popular perception of management of quoted companies in Nigeria that the size of a company's audit firm or its international affiliation influences the quality of information in the annual reports and that the clients of Big-4 audit firms report higher quality of accounting information than non-Big-4 audit firms.

The evidence from the multiple regression conducted on the relationship between the firm's market structure and financial reporting using the market structure index confirms substantial evidence of a significant positive relationship between the firm's market variables and financial reporting quality in Nigerian quoted companies.

5.2 Policy and Practice Implications of Findings

There are several implications of this research for policy and practice. The findings from this study have practical implications for the auditing and accounting professions in Nigeria. The

auditing and accounting professions have embarked on a series of programmes and policies with a view to improving the quality of auditing and financial reporting by encouraging the local audit firms to compete with the international audit firms. Evidence from the study indicates that majority of companies in the sample were audited by the Big-4 audit firms. The results of this study therefore provide a platform for the regulators of the auditing profession in Nigeria to assess the effectiveness of their policies on the practice of auditing and accounting professions in Nigeria.

5.3 Recommendations

Audit firm size as shown by the results of this study is quite critical in explaining financial reporting quality in Nigeria. Therefore, regulators of the accounting and auditing profession should put in measures that would encourage small audit firms to grow through merger and acquisitions. With consolidation, smaller audit firms can be equipped with the necessary skills, equipment and manpower that will enable them compete with the Big-4 firms and reduce capital flights arising from the profits taken by the foreign partners.

Available evidence from this study indicates that firm's market structure plays a significant roles in explaining the quality of financial reporting in Nigerian quoted companies. The result further shows that about 60% of the variations in the quality of financial reporting among quoted companies in Nigeria is explained by firm's market variables. Consequently, the concerned regulatory bodies and all other stakeholders in the relevant sectors are advised to intensify their attention on firm's market structure variables as they are significant determinants of the quality of financial reporting in Nigerian quoted firm by constraining managers to act opportunistically in preparing financial statements.

5.4 Conclusion

The objective of this study was to determine which factors impact on the quality of financial reporting in Nigerian quoted companies for the period 2010 - 2014. We extend previous researches on the determinants of financial reporting quality in some aspects. First, unlike many earlier studies conducted in developed countries, this study was conducted in Nigeria, an important developing country.

The study has some implications for developing markets such as Nigeria. These markets have high potential for growth that needed support from external capital. In this respect, attracting foreign investments to these economies is very crucial. Transparency and accountability in the corporate reporting practices are key ingredients needed for the flow of foreign investments into an economy.

The findings of this study also have some theoretical consequences. Some of the theories reviewed in the literature, to a large extent are supported with facts and evidences. We found that some variables play significant role on the quality of reporting as hypothesised while some variables conflicted with our expectations. Thus, further studies are needed to provide more empirical evidence.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX
Market structure regression results

Dependent Variable: RESID01
Method: Panel EGLS (Cross-section weights)
Date: 11/29/15 Time: 02:43
Sample: 2010 2014
Periods included: 5
Cross-sections included: 60
Total panel (unbalanced) observations: 244
Linear estimation after one-step weighting matrix

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | -0.026121 | 0.044673 | -0.584717 | 0.5595 |
| AFSIZE | 0.037323 | 0.026182 | 1.425538 | 0.1557 |
| INTYPE | -0.039309 | 0.028150 | -1.396388 | 0.1643 |

Effects Specification

Cross-section fixed (dummy variables)

| | Weighted Statistics | | |
|--------------------|---------------------|--------------------|----------|
| R-squared | 0.622451 | Mean dependent var | 0.013243 |
| Adjusted R-squared | 0.493125 | S.D. dependent var | 0.183009 |
| S.E. of regression | 0.130266 | Sum squared resid | 3.071431 |
| F-statistic | 4.813034 | Durbin-Watson stat | 2.464817 |
| Prob(F-statistic) | 0.000000 | | |

Unweighted Statistics

| | | | |
|-------------------|----------|--------------------|----------|
| R-squared | 0.377222 | Mean dependent var | 0.008008 |
| Sum squared resid | 3.190084 | Durbin-Watson stat | 2.529425 |

Dependent Variable: RESID01
Method: Panel EGLS (Cross-section random effects)
Date: 11/29/15 Time: 03:00
Sample: 2010 2014
Periods included: 5
Cross-sections included: 60
Total panel (unbalanced) observations: 244
Swamy and Arora estimator of component variances

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 0.051501 | 0.054003 | 0.953671 | 0.3412 |
| AFSIZE | 0.007911 | 0.024270 | 0.325954 | 0.7447 |
| INTYPE | -0.011485 | 0.022716 | -0.505585 | 0.6136 |

Effects Specification

| | | | |
|----------------------|--|----------|--------|
| Cross-section random | | S.D. | Rho |
| Idiosyncratic random | | 0.063391 | 0.1874 |
| | | 0.131999 | 0.8126 |

Weighted Statistics

| | | | |
|--------------------|-----------|--------------------|----------|
| R-squared | 0.005173 | Mean dependent var | 0.005283 |
| Adjusted R-squared | -0.007263 | S.D. dependent var | 0.130743 |
| S.E. of regression | 0.131234 | Sum squared resid | 4.133357 |
| F-statistic | 0.415975 | Durbin-Watson stat | 1.943230 |
| Prob(F-statistic) | 0.741689 | | |

Unweighted Statistics

| | | | |
|-------------------|----------|--------------------|----------|
| R-squared | 0.009280 | Mean dependent var | 0.008008 |
| Sum squared resid | 5.074811 | Durbin-Watson stat | 1.601791 |

Dependent Variable: RESID01
Method: Panel EGLS (Cross-section weights)
Date: 11/29/15 Time: 03:01
Sample (adjusted): 2011 2014
Periods included: 4

Cross-sections included: 60
 Total panel (unbalanced) observations: 184
 Iterate coefficients after one-step weighting matrix
 White cross-section standard errors & covariance (d.f. corrected)
 Convergence achieved after 10 total coef iterations
 Warning: estimated coefficient covariance matrix is of reduced rank

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|------------------------------|-------------|--------------------|-------------|----------|
| C | 0.059066 | 0.014497 | 4.074322 | 0.0001 |
| AFSIZE | 0.019084 | 0.008529 | 2.237555 | 0.0265 |
| INDTYPE | -0.029460 | 0.005967 | -4.936886 | 0.0000 |
| AR(1) | 0.085425 | 0.030141 | 2.834172 | 0.0051 |
| Weighted Statistics | | | | |
| R-squared | 0.119785 | Mean dependent var | | 0.010934 |
| Adjusted R-squared | 0.100116 | S.D. dependent var | | 0.121838 |
| S.E. of regression | 0.115369 | Sum squared resid | | 2.382487 |
| F-statistic | 6.089876 | Durbin-Watson stat | | 1.790016 |
| Prob(F-statistic) | 0.000129 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.080770 | Mean dependent var | | 0.000773 |
| Sum squared resid | 2.493467 | Durbin-Watson stat | | 1.541992 |
| Inverted AR Roots | .09 | | | |

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Peer-review history:
 The peer review history for this paper can be accessed here:
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