Effects of Audit Fees among Quoted Firms in Nigeria: An Audit Quality Perspective

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ABSTRACT
This study focused on the effect of audit fees among quoted firms in Nigeria: a perspective on audit quality. In order to achieve the objective an ex-post-facto survey research design was adopted to gather secondary source of data for the study. The study covered the period 2012-2021. Moreover, both descriptive and Panel regression analysis were employed to investigate the data collected from the published financial statement of the selected quoted companies. The result of the panel regression obtained revealed that there was a significant positive relationship between audit fee and audit quality in Nigeria quoted companies. The study concluded that audit fee and quality of audited financial statement in the selected quoted companies were directly related. It was recommended that to enhance the quality of audited financial statement in the selected quoted companies audit fee must be adequate and paid promptly.

Keywords: Audit fee, Audit Firm Size, Audit Tenure, Profitability, Leverage, Audit Quality.

I. INTRODUCTION

The need for reliable audit report has increased tremendously in the recent times. One major factor that triggered this is the growing importance of good corporate governance mechanism arising from highly publicized accounting scandals in Nigeria and across the globe, many high profile corporate collapses, such as the case of Enron scandal of 2001; Parmalat in 2003; Cadbury Nigeria Plc in 2006 and Afribank Nigeria Plc in 2009 (Ajani, 2012; Miettinen, 2011). These incidences have created a revolution in the design and evaluation of the audit quality and have in fact reinforced the need for its improvement.

The business of auditing and the audit process provide an evaluation of the probability of material misstatement and reduce the possibility of undetected misstatement to a reasonable or appropriate assurance level (Knechel, 2009). The process involves performing procedures to obtain evidence about amounts and disclosures in the financial statements so as to evaluate the appropriateness of accounting estimates made by management (KPMG, 2008). Thus audit report quality is a basic requirement to enhance the credibility of financial statements within the stakeholders. The Audit quality therefore, is a basic ingredient in enhancing the credibility of financial statements to users of accounting information.

To this end, audit quality has come to be one of the most important issues in audit practice today. Several individuals and groups; both internal and external, have an interest in the quality of audited financial information (IAASB, 2011). Auditors express their audit opinions on a financial statement presented to them based on audit evidence. Insufficient or inappropriate audit evidence may lead to wrong conclusions and this may affect the quality of the report. Hence, the issue of audit quality has received increased attention due to highly publicized audit failures culminating in corporate scandals, corporate fraud, and corporate failure.

The need to improve on audit quality arises out of the fact that investor confidence might suffer with its attendant effect on investment. Understanding the factors that influence audit quality could aid researchers and corporate firms to appraise how much they use such variables. A number of studies have been conducted both in Nigeria and abroad to understand the effect of audit fee on audit quality.

There is equally conflict in empirical findings on literature. While a good number of the studies posit positive relationship between audit fee
and quality (Yuniarti, 2011; Rahmina&Agoes, 2014; Oladipupo & Monye-Emina, 2016; Onaolapo, Ajulo&Onifade, 2017), others support negative relationship (Enofe, Mghame, Aderin&Ehi-Oshio, 2013; Hoitash, Markelevich&Barragato, 2007), whereas some found no relationship at all (Choi, Kim, and Zang (2010). However, there is no empirical study in Nigeria that studied the audit fee-quality nexus among the consumer goods firms in Nigeria.

Again, the review of empirical studies in Nigeria, to the best of the researcher knowledge, are scanty. More so, no study in Nigerian context have ever used the mixed scenario case studies that include; the consumer goods sector, Cement Manufacturing sector and Food and Beverage sectors of the Nigeria Stock Exchange for a study of this nature, even as this study is the most recent covering data from 2012 up to 2021 to bring the empirical debate on the effect of audit fee an applicability to audit quality to currency. These gaps are filled by this study. On this premises, the broad objective of the study is to examine the effects of audit fee among quoted firms in Nigeria. The specific objectives are to; examine the effect of audit fee on audit quality, determine the effect of audit tenure on audit quality and examine the effect of client’s size on audit quality. In order to achieve the objectives the study is divided into five parts. Part one is the introduction, part two is the literature review, part three is the methodology, part fours deals with the presentation and discussion of result while part five is the conclusion and recommendation.

II. LITERATURE REVIEW

This section of the study focuses on the review of literature under three sub-sections, namely, conceptual, theoretical and empirical review.

Conceptual Review

Audit Fee

The official assignment of the audit attracts service charge. The amount of money that make up this charge is called audit fee. This fee according to The Securities and Exchange Commission, Final Rule (in Yuniarti, 2011), is paid for annual audits and reviews of financial statements for the most recent fiscal year. The total fee paid is usually the amount of all costs covered for audit (Hoitash, Markelevich&Barragato, 2007); thus, it equally reflects the cost of the efforts of the public editors and litigation risks (Choi, Kim, Liu &Simunic, 2009). By this explanations, audit fee would vary depending on the auditee size and how complex the auditing process is (Lyon & Maher, 2005).

However, several authors seem to suggest that audit fee influences audit quality and hence they tend to use audit fee as proxy for audit quality. Yassin and Nelson (2012) suggested that a higher audit fees indicates that auditors provide more efficient audit services to the companies compared to lower audit fees. Since the audit market is closely regulated wherein the opportunities to earn rents is limited, auditor efforts are more likely reflected by audit fees (Kanagarettnam, Krishnan, Lobo, & Mathieu, 2011). Moreover, for a more thorough investigation, more audit hours and more specialized audit staff are required; thus higher audit fees would be expected (O’Sullivan &Diacon, 2002). Hence, it is expected that higher audit fees indicate a higher quality audit, as more audit work is required to ensure that the financial statements are free from material misstatement.

Auditor Tenure

Tenure is the number of time period that a body is allowed to carry out a function in a consecutive sequence. In the view of Nuratama (2011) and Hartadi (2009), audit tenure is the agreed period of engagement between the auditor and client. In literature, it is believed that an audit contract that is up to three years means a longer term period while ones less than three years are short term (Ilaboya & Ohiohka, 2014; Rahmina&Agoes, 2014; Oladipupo & Monye-Emina, 2016; Onaolapo, Ajulo&Onifade, 2017).

Client Size

Client size is the measure of how large is the firm. Literature has used amount of sales, total assets and branch network to measure the size of firm. In this study, the measure adopted is the total assets of the selected firms. It is believed that large firm connotes more work. External auditors have to spend more time for client meetings, understanding client complicated internal control systems, designing more audit procedures and conducting more test of detail (Steward & Munro, 2007). To this end, as the fees paid to auditors depend on the amount of time to complete the job given, it is expected that larger companies have to pay higher audit fees. Therefore, it is believed that higher audit quality can be easier achieved by the larger audit firm (Francis, 2004), because of their ability to discover and detect the misstatements (DeAngelo, 1981). However, because of the existence of the auditor-related specifications such as professional competence, technical ability, auditor’s liability as well as auditor independence, it is more expected to reach higher audit quality in large audit firms (Hussein & Hanefah, 2013).
Audit Client Profitability

Profitability measures the extent to which a business generates a profit from the factors of production: labour, management and capital. Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business. Four useful measures of profitability are the rate of return on assets (ROA), the rate of return on equity (ROE), operating profit margin and net income (Hansen & Mowen, 2005). These are regarded as market-based indicators of financial performance that capture company’s internal efficiency (Orlitzky, Schmidt & Rynes, 2003). However, since the study aims to capture asset allocation, the proportion of net profit to total assets measures of return on assets (ROA) is used in this study to measure profitability.

Financial leverage results from the difference between the rate of return the company earn on investment in its own asset and the rate of return the company must pay its creditors (Garrison et al., 2004 as cited in Bhatti, Majeed, Rehman, & Khan, 2010). The term “Leverage” is commonly described as the use of borrowed money to make an investment and return on that investment. It is more risky for a company to have a high ration of financial leverage. It has also been noticed that on the outcome of financial leverage: if the level or point of financial leverage is high, the more rise is anticipated profit on company's equity. Thus, financial leverage is used in various circumstances as a means of altering the cash flow and financial position of a company. An increase in financial leverage results in increase in firm returns and risk. The amount of leverage in the firm’s capital structure – a mixture of long term debt and equity

Audit Quality

The term audit quality does not have a universally accepted definition. It connotes the quality of audit report from an auditor. Audit itself is an independent examination of and expression of opinion on the financial statement of an enterprise by an appointed auditor, in pursuance of that appointment and in compliance with any relevant statutory obligation (Onaolapo, Ajulo & Onifade, 2017). To this end, audit is expected to improve the value of information presented in the financial statements and as a result of this, audit quality has to do with a display of professionalism, diligence and care by auditor in audit process which should lead to a true and fair view of financial statement (Arrunada, 2000).

Thus, audit quality is auditor’s ability on discovering the material misstatement and reports them (DeAngelo, 1981). In the words of Arens, Elder, Beasley, Best, Shailer, Fielder (2011) audit quality means how well an audit detects and report material misstatements in financial statements, the detection aspects are a reflection of auditor competence, while reporting is a reflection of ethics or auditor integrity, particularly independence”. It can equally be referred to as the joint probability in which an auditor finds and reports errors contained in the audited financial statements to comply with general auditing standards in performing their duties so that credibility is maintained (Rahmina & Agoes, 2014).

These definitions suggest that audit quality has to do with detecting misstatements, and correcting them so that what is reported in the financial statement becomes the true position of the firm so audited. This is why Onaolapo, Ajulo and Onifade (2017) averred that the existence of audit quality is validated when a financial statement is free from information asymmetry. This implies that audit quality will bring actual quality and perceived quality to be the same in context and value. The definition of Jackson, Moldrich and Roebuck (2008) view the quality of audits from actual and perceived quality. According to the definitions, actual quality shows levels of risk of material errors in financial statements that can be reduced by the auditor. Perceived quality indicates the level of confidence of users in financial statement and the auditor’s effectiveness in reducing material
misstatement in financial statements prepared by management. Therefore, the concept of audit quality implies that the necessary actions that will ensure the report of the true financial position of a firm has been put in place.

The expertise needed to do these is believed to lie with the big and well established firms. Thus in Nigeria, audit quality has been denoted with the likelihood that a sampled company employs the services of one of the big audit firms. The variables is represented using dummy of the audit firm size where the big 4 audit firm is assigned to represent quality audit and non-big 4 implies otherwise. The big4 audit firms in Nigeria are Akintola Williams Deloitte, PwC Nigeria, Ernst & Young, and KPMG. This criteria has been adopted by studies like (Onaolapo, Ajulo & Onifade, 2017; Oladijupoo & MonyeEmina, 2016; Adeniyi & Mieseighana, 2013).

III. THEORETICAL REVIEW

Agency Theory

Agency theory is concerned with resolving problems that can exist in agency relationships; that is, between principals (such as shareholders) and agents of the principals (for example, company executives). The two problems that agency theory addresses are: the problems that arise when the desires or goals of the principal and agent are in conflict, and the principal is unable to verify what the agent is actually doing and the problems that arise when the principal and agent have different attitudes towards risk. Because of different risk tolerances, the principal and agent may each be inclined to take different actions.

Adams (1994) in his article stated that Agency theory can provide for richer and more meaningful research in the internal audit discipline. Agency theory contends that internal auditing, in common with other intervention mechanisms like financial reporting and external audit, helps to maintain cost-efficient contracting between owners and managers. This theory is relevant to this study in the sense that agency theory may not only help to explain the existence of internal audit in organizations but can also help explain some of the characteristics of the internal audit department, for example, its size, and the scope of its activities, such as financial versus operational auditing. Agency theory can be employed to test empirically whether cross-sectional variations between internal auditing practices reflect the different contracting relationships emanating from differences in organizational form.

Contingency Theory

The goal of an audit is to test the reliability of a company’s information, policies, practices and procedures. Government regulations require that certain financial institutions undergo independent financial audits, but industry standards can mandate audits in other areas such as safety and technology. Regardless of the audit subject, various factors impact a company’s final results, and the contingency theory takes these factors into account during the audit process.

The contingency theory of leadership and management states that there is no standard method by which organizations can be led, controlled and managed. Organizations and their functions depend on various external and internal factors. The functions of audits are themselves, types of organizations that are affected by various factors in the environment. The presence of such factors is why auditing can be managed by applying the contingency theory, with a recognition that processes and outcomes of audits are dependent on variable and contingent factors.

On a broad level, the audit process is straightforward. Auditors require access to documents, systems, policies and procedures to manage an audit. They must remain compliant with industry standards, government regulations and internal requests. Audit teams may begin the audit process with meetings where they gather risk and control awareness, after which the field work begins. During the audit process, auditors perform substantive procedures and test controls. They then draft reports that they submit to management and regulatory authorities. The audit sub processes, particularly in planning and field work, include contingencies such as business type, employee skill level, applicable laws, available audit workforce, available technology and systems, and deadline.

Audit functions are task-oriented and can be loosely structured. The functions also can vary considerably, depending on the area of a company under audit and the type of business model, so auditors must carefully manage their inspections and take variables into account to get the job done. The contingency theory also can be applied to an audit team’s structure. Typically, audit team managers receive audit projects. They then create ad hoc audit teams for the projects, selecting auditors based on expertise and experience in the subject areas, and on auditor availability, all of which add up to contingencies for any given audit project.

Audit teams use a mix of structure and contingency to get the output rolling quickly. The subject of auditing projects can include such diverse areas as evaluation of production processes,
inspection of company accounts, and assessment of compliance with industry standards. Selecting auditors with specialized training or those who have a particular skill set in the subject area minimizes the learning curve and reduces opportunities for errors. The quality and output of audits remain assured when audit teams use resources according to expertise and experience, and when auditors are flexible and can adapt to process fluctuations. For example, an auditor experienced in evaluating financial instruments can be effective in an audit exercise of a bank or hedge fund, even when the financial instruments the institution offers do not fit the typical mould (Davoren, 1994).

**Lending Credibility Theory**

Volosin, (2007) opined that lending credibility theory is similar to the agency-theory and it states that audited financial statements can enhance stakeholders faith in management’s stewardship. The business world consists of different groups that are affected by, or participate in, the financial reporting requirements of the regulatory agencies. They are shareholders, managers, creditors, employees, government and other groups. The major recipients of the annual reports are the shareholders, including individuals with relatively small shareholding and large institutions such as banks or insurance companies. Their decision is usually based on the financial reporting and the performance of the company’s management, who have a responsibility to act in the interests of investors thus, the purpose of the financial statements.

The auditor is appointed by the company’s shareholders and reports his results to his clients. The aim of the auditor’s report is to comment on how accurately the company presents its financial situation and how it is performing. This should reassure the shareholders that their investment is secured and also help to reduce the practice of misleading accounting procedures designed to show the company in a more favourable light. Basically, the audit is represented as a process designed to evaluate the credibility of information of a company's financial statements (Letza, 1996).

**IV. THEORETICAL FRAMEWORK**

The theoretical framework of the study is hinged on the principal-agent theory of audit pricing. The agency theory deals with the contractual relationship between the agent (manager) and the principal (shareholders) under which shareholders delegate responsibilities to the manager to run their business. This theory argues that when both parties are expected to maximise their utility, there is good reason to believe that the agent may engage in opportunistic behaviour at the expense of the principal’s interest. Jensen and Meckling (1976) modelled this condition as an agency relationship where the inability of the principal to directly observe the agent's action could lead to moral hazard, thus increasing agency cost. The level of cordiality between the agent and the principal has influence on the price of audit. According to Jensen and Meckling (1976), a component of the agency costs is represented by the monitoring costs supported by shareholders for the monitoring of the managers actions. The audit fees are an important component of these costs, as long as auditors have to make sure that managers act according to the shareholders' interests, while also auditors have the required task to inspect the accounts of the company.

**V. EMPIRICAL STUDIES**

Enofe, Mgbame, Aderin, and Ehi-Oshio (2013) analyzed the determinants of audit quality in Nigerian business environment. The determinants studied include engagement and firm related characteristics such as audit tenure, audit firm size, board independence and ownership structure. A Likert scale questionnaire was developed and used to collected data from a sample of 100 respondents from the South-South geopolitical zone of Nigeria. A multiple regression model developed was analysed using the OLS regression technique. From the results, audit firm size, board independence and ownership structure were found to be positively related to audit quality; however, only board independence exhibited a significant relationship with audit quality. Audit tenure exhibited a negative relationship with audit quality which was also not significant.

Choi, Kim, and Zang (2010) employed a multiple regression technique to examine whether and how audit quality proxied by the magnitude of absolute discretionary accruals is associated with abnormal audit fees, that is, the difference between actual audit fee and the expected, normal level of audit fee. The results of various regressions reveal that the association between the two is asymmetric, depending on the sign of the abnormal audit fee. For observations with negative abnormal audit fees, there is no significant association between audit quality and abnormal audit fee. In contrast, abnormal audit fees are negatively associated with audit quality for observations with positive abnormal audit fees.

Following the nature of Indonesia where there is high audit market competition and strong client bargaining power resulting from regulation
on mandatory audit firm rotation, Fitriany and Anggraita (2016) investigated the economic bonding between auditor and client by examining the association between abnormal audit fee and audit quality. The study employed the natural log of actual fees paid to auditors for their financial statement audits as dependent variable while the independent variables included total assets (firm size), number of business segments, number of geographic segments, inventory and receivables, number of employees, firm report a loss, leverage, return on assets, firm liquidity, the use of the Big4 auditors, tenure, book-to-market ratio, and sales change. The multiple regression model showed that a positive abnormal audit fees are negatively associated with audit quality and imply that the audit fee premium is a significant indicator of compromised auditor independence due to economic auditor–client bonding. Audit fee discounts could also increase audit quality, maybe due to the mandatory audit firm rotation and high audit market competition in Indonesia, so that the auditor must keep their independency and high audit quality to maintain good reputation.

Hoitash, Markelevich and Barragato (2007) examined the relationship between fees paid to auditors and audit quality during the period of 2000- 2003 in the USA. The study constructed a measure of auditor profitability that is used as a proxy for auditor independence. This approach was employed on the ground that auditor independence is influenced by effort and risk-adjusted fees, rather than the level of fees received from clients. Since, risk and effort are unobservable, the paper uses proxies based on client size, complexity and risk to estimate abnormal fees. Abnormal fees are derived using a fee estimation model drawn from prior literature. Two measures of audit quality were used: the standard deviation of residuals from regressions relating current accruals to cash flows and the absolute value of performance-adjusted discretionary accruals. The OLS regression results documented a statistically significant negative association between total fees and both audit quality proxies.

Krauß, Quosigk, and Zülch (2014) examined the presence and magnitude of initial audit engagement fee cutting and its potential effect on audit quality in Germany using a sample of 992 firm-year observations from 2005 to 2011. The results show a systematic fee cutting for initial audit engagement years in Germany. However, despite significant audit fee differences between initial and subsequent audit engagement years, there was no differences in audit quality.

Krauß, Pronobis, and Zülch (2015) examined the association between abnormal audit fee pricing and audit quality for the institutional setting of German IFRS firms by using a sample of 2,334 firm-year observations for the period from 2005 to 2010. The findings show that positive abnormal audit fees are negatively associated with audit quality and imply that the audit fee premium is a significant indicator of compromised auditor independence due to economic auditor–client bonding. Audit fee discounts generally do not lead to a reduced audit effort, or respectively, audit quality is not impaired when client bargaining power is strong. The association of positive abnormal audit fees and audit quality is robust to different audit quality surrogates such as absolute discretionary accruals, financial restatements, and meeting or beating analysts’ earnings forecasts.

Ilaboya and Ohiohka (2014) examined the impact of audit firms’ characteristics on audit quality. The study proxied audit quality using the usual dichotomous variable of 1 if big 4 audit firm and 0 if otherwise. A sample of 18 food and beverage companies listed on the Nigerian Stock Exchange market within 2007-2012 was used for the study. A multivariate regression technique with emphasis on Logit and Probit method was used to estimate the model for the study. The findings indicate that there is a positive relationship between firm size, board independence and audit quality whereas there is a negative relationship between auditor’s independence, audit firm size, audit tenure and audit quality.

Oladiupo and Monye-Emina (2016) examined the effect of abnormal audit fees on audit quality in audit market in Nigeria. The study thus employed audit quality as dependent variables while the explanatory variables were audit tenure, board independence, audit committee activeness, firm size and leverage. Using a probit binary regression technique on 350 firm observations data obtained from companies quoted on the Nigeria Stock Exchange, it was observed that both positive and negative abnormal audit fees had insignificant positive impacts on audit quality. This shows that abnormal audit fee does not matter to audit quality. Contrary to expectation, board independence and firm size had negative impacts on audit quality. However, only the impact of board independence was statistically significant. Of the auditor tenure, audit committee activeness and leverage that have positive impacts on audit quality, only the leverage had significant impact on audit quality.

Yuniarti (2011) examined the determinant factors of audit quality by proposing the hypothesis that the audit firm size (size of public accounting
firm) and audit fees (audit fees) have an effect on the audit quality. The unit of analysis was the external auditor who has worked in (Certified Public Accountant) CPA firm, the author takes the CPA Firm in Bandung, West Java, Indonesia. This type of research is descriptive verification research, because it describes the variables and observes the correlation of these variables from the hypothesis that has been made systematically through statistical testing. The statistical test use path analysis and the examination of the hypothesis in this research using two ways: simultaneous test and individual test (partial), using t-test and f-test. Empirical test results that the CPA firm size does not significantly affect to audit quality in public accounting firm in Bandung, whereas the amount of audit fee significantly affect to quality of audit and simultaneously CPA firm size and audit fees do not significantly affect to quality of audit in public accounting firm in Bandung.

Rahmina and Agoes (2014) aimed to determine the effect of auditor independence, audit tenure, and audit fee both partially and simultaneously on the audit quality. This research uses primary data collected through the distribution of questionnaires in audit firm listed in Capital Market Accountant Forum – FAPM in Indonesia. The population of research are senior auditor, supervisors, managers, and partners positions and worked on the audit firm member of FAPM. The results of this research show that in general auditor independence, audit tenure, and audit fee have a positive influence on audit quality. The test Coefficient of Determination result of 21.4% indicates that the audit quality can be explained by variations in auditor independence, audit tenure, and audit fee, while the remaining 78.6% is explained by other variables that are not used in this research, such as auditor’s size, auditor’s industry specialization, and audit risk.

Onaolapo, Ajulo and Onifade (2017) examined the effect of audit fees on audit quality in Nigeria using a sample of listed cement companies on the floor of the Nigerian Stock Exchange. The explanatory variables were audit fee, audit tenure, client size, leverage ratio while audit quality as the dependent variable. Ordinary Least Square Model estimation technique was used for the data analyses. Secondary data derived from the published annual reports of the selected companies for a six year period (2010-2015) was used for the study. Findings from the study show that audit fee, audit tenure, client size and leverage ratio exhibit a joint significant relationship with audit quality. Further results show that audit fee in particular has a significant positive impact on audit quality.

VI. METHODOLOGY

This study used an ex post facto research design to collect that data that are already existing from records of the selected firms for the study. The study is an ex- post facto because the researcher used the real data as obtained from the official documents of the firms. The population of this study comprises all the consumer goods firms, Cement manufacturing firms and Food and Beverage quoted at the Nigerian Stock Exchange (NSE) for the period of s ten (10) years from 2012 to 2021. At present, there are 28 quoted consumer goods firms, four Cement Manufacturing Companies and only 6 Food and Beverage firms in Nigeria. This gave a total of 38 quoted firms in Nigeria. The researcher adopted a purposive sampling technique to select a sample of ten quoted companies from the list for the study. The company selected must as a matter of requirement fulfilled the following criteria;

- It must has unbreakable ten years financial report submitted to the NSE from the periods 2012 -2021.
- The selected company must not have merger or acquire by any company for the years in question.
- The quoted company selected must not be at the point of bankruptcy.

The time frame ranges from 2012 to 2021 making it a ten period. The number of firms’ data collected for ten years were ten (10). The total observations for each variable is therefore 100 series making a total of 10 observation for each cross- sectional/Company. Moreover, both descriptive and Panel regression analysis were used to achieve the set objectives of the study. In addition, in order to identify which of the panel estimate (fixed or random) might be used the Hausman test was carried out.

Model estimation

The model used for this study follow a similar model specific by Onaolapo, Ajulo and Onifade (2017) with slight modification. This model is functionally expressed as;

\[
\text{Audit quality} = f(\text{audit fee, audit tenure, client size and leverage ratio})
\]

This present study recognized the benefit of profit in financial decision making in corporate firms and then included profitability as one of the control variables (which ensure that the main independent variable of the study is not polluted) in the study alongside firm size and leverage. The functional relationship in equation 3.1 is then modified as:
AUDQTY = f(AUDFEE, AUDTEN, SIZE, PROFIT and LEV)

3.2

The mathematical form of the model in 3.2 is expressed as;

$$\text{AUDQTY} = \beta_0 + \beta_1 \text{AUDFEE} + \beta_2 \text{AUDTEN} + \beta_3 \text{SIZE} + \beta_4 \text{PROFIT} + \beta_5 \text{LEV} + \mu$$

3.3

Where,

AUDQTY = Audit Quality

AUDFEE = Audit Fee

AUDTEN = Audit Tenure

SIZE = Firm Size

PROFIT = Profitability

LEV = Leverage

Also, $\beta_0$ = Intercept or constant and $\beta_1$ to $\beta_4$ = Regression parameters to be estimated

A priori expectation for the coefficients of the regression parameters is given as; $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$ and $\beta_5 > 0$.

### Variable Description

<table>
<thead>
<tr>
<th>S/N</th>
<th>Symbols</th>
<th>Variable name</th>
<th>Type</th>
<th>Measure</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>AUDQTY</td>
<td>Audit Quality</td>
<td>Dependent Variable</td>
<td>1 if audit firm is big 4 and 0 if otherwise</td>
</tr>
<tr>
<td>2</td>
<td>AUDFEE</td>
<td>Audit Fee</td>
<td>Independent</td>
<td>Natural log of audit fees paid by the client firm</td>
</tr>
<tr>
<td>3</td>
<td>AUDTEN</td>
<td>Audit Tenure</td>
<td>Independent variable</td>
<td>1 if 3 years and above and 0 if otherwise</td>
</tr>
<tr>
<td>4</td>
<td>SIZE</td>
<td>Client Size</td>
<td>Control variable</td>
<td>Natural log of total asset of the client firm</td>
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<tr>
<td>5</td>
<td>PROFIT</td>
<td>Client Profit</td>
<td>Control variable</td>
<td>Return on asset being profit after tax divided by total asset</td>
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<td></td>
<td>LEV</td>
<td>Client Leverage</td>
<td>Control variable</td>
<td>Total Debt/Equity</td>
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</tbody>
</table>

Source: Adapted from Oladipupo and Monye-Emina (2016) and authors conception cited by Ilechukwu (2018)

### VII. PRESENTATION AND DISCUSSION OF RESULT

#### Descriptive Statistics

Tables 1 to 3 presented the results of the descriptive statistics computed for the test variables of the study.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>AUDQTY</th>
<th>AUDFEE</th>
<th>AUDTEN</th>
<th>PROFIT</th>
<th>SIZE</th>
<th>LEV</th>
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</thead>
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<tr>
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<td>Median</td>
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<td>5.670000</td>
<td>1.000000</td>
<td>2.000000</td>
<td>1.000000</td>
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<td>Maximum</td>
<td>26.78000</td>
<td>9.670000</td>
<td>1.000000</td>
<td>7.000000</td>
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<td>1.000000</td>
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<td>Minimum</td>
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<td>4.000000</td>
<td>0.000000</td>
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<td>Stan. Deviation</td>
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<td>0.499646</td>
<td>1.491578</td>
<td>0.488709</td>
<td>0.501531</td>
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<td>Skewness</td>
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<td>0.829097</td>
<td>-0.175674</td>
<td>1.098015</td>
<td>-0.461842</td>
<td>0.025002</td>
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<td>Kurtosis</td>
<td>10.66362</td>
<td>2.719212</td>
<td>1.030861</td>
<td>3.483441</td>
<td>1.213298</td>
<td>1.000625</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>2.419415</td>
<td>1.853632</td>
<td>0.673025</td>
<td>0.708413</td>
<td>0.969972</td>
<td>0.66667</td>
</tr>
<tr>
<td>Probability</td>
<td>0.064321</td>
<td>0.423212</td>
<td>0.564332</td>
<td>0.521354</td>
<td>0.421129</td>
<td>0.576543</td>
</tr>
<tr>
<td>Sum</td>
<td>717.6200</td>
<td>968.3500</td>
<td>87.00000</td>
<td>381.0000</td>
<td>98.00000</td>
<td>79.00000</td>
</tr>
<tr>
<td>Sum Sq Deviation</td>
<td>717.6200</td>
<td>354.1207</td>
<td>39.67375</td>
<td>353.7438</td>
<td>37.97500</td>
<td>39.99375</td>
</tr>
</tbody>
</table>

Source: Researcher’s computation, 2022
Table 1 presented the result of the descriptive statistics obtained for the test variables. Looking at the result of the Jarque-Bera statistics computed for the study parameter, it might be inferred that all the test items used for the study were normal. This statement was premised on the fact that the p-values of the Jarque-Bera statistics computed for the variables were less than the critical value of 5%. On this basis, it was saved to state that the interaction between the dependent, independent and other control variables of the model might produce result that could be generalize.

Table 2 Hausman Test Result
Correlated Random Effects - Hausman Test
Equation: Panel Random Effect
Test cross-section random effects

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>29.00413</td>
<td>5</td>
<td>0.0000</td>
</tr>
<tr>
<td>Cross-section Fixed</td>
<td>1.564345</td>
<td>5</td>
<td>0.3764</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation, 2022

Table 2 presented the result of the Hausman test used to diagnose the type of Panel regression analysis that might be employed to investigate the objective of the study. Looking at the result of the Hausman test in table 2, it might be asserted that cross-section random effect test would be needed to investigate the objectives of the study.

Table 3 Regression Result (Panel Random Effect Test)
Dependent variable: Audit Quality AUDQTY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T-calculated</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.969092</td>
<td>1.278176</td>
<td>-0.758184</td>
<td>0.4495</td>
</tr>
<tr>
<td>AUDTEN</td>
<td>0.983082</td>
<td>0.267393</td>
<td>3.676539</td>
<td>0.0003</td>
</tr>
<tr>
<td>SIZE</td>
<td>4.655083</td>
<td>0.595770</td>
<td>7.813557</td>
<td>0.0000</td>
</tr>
<tr>
<td>PROFIT</td>
<td>0.962669</td>
<td>0.231964</td>
<td>4.150079</td>
<td>0.0000</td>
</tr>
<tr>
<td>LEV</td>
<td>0.893931</td>
<td>0.752464</td>
<td>1.188005</td>
<td>0.2367</td>
</tr>
<tr>
<td>OTHER</td>
<td>3.140286</td>
<td>0.750503</td>
<td>4.184240</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER TEST STATISTICS</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>S.E. of regression</th>
<th>Sum squared resid</th>
<th>Log likelihood</th>
<th>F-statistic</th>
<th>Prob(F-statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.894325</td>
<td>0.868167</td>
<td>3.654414</td>
<td>2056.631</td>
<td>-431.3222</td>
<td>77.428828</td>
<td>0.000000</td>
</tr>
<tr>
<td>Mean dependent var</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.D. dependent var</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Akaike info criterion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.466528</td>
</tr>
<tr>
<td>Schwarz criterion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.581847</td>
</tr>
<tr>
<td>Hannan-Quinn criter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.513355</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.208009</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation, 2022 (E-view 9)

The result of the regression analysis in table 3 was the result of the Panel regression in random effect estimate used to investigate the objective of the study. Looking at the result above, it was observed that the p-value of the t-statistics computed for the variable of audit fees (AUDFEES) of 0.0003 was less than the critical value of 5%. This indicated that the null hypothesis
which stated that audit fees was not significant on audit quality in the selected quoted companies was rejected. It was saved to assert that audit fees was significant on the audit quality in the selected quoted companies. Audit fee must be in line with the quantities of the audit work in order to enhance the quality of the auditor work. With better audit charges Aliyu (2017) opined that the capacity of the auditors to be able to get deeper in enhance the quality and quantum of the audit work might improve. Auditors add value to the prepared financial statement by companies Directors, hence, their fee must commensurate with the quantities of the work done. The regression coefficient obtained for the variable of audit fee was 0.98 and positive with significant t-statistics value of 3.68. This indicated that there was a significant positive relationship between audit fee and quality of the audited financial report in quoted companies. Thus, a 1% increase in audit fee might lead to 0.98% improvement in quality of the audit work. The sign of the variable of audit fee was in conformity with a priori expectation, hence, audit fee might be one of the determinants of audit quality.

It was found that the p-value of the t-statistics computed for audit tenure of 0.0000 was less than the critical value of 5%. This indicated that the null hypothesis which stated that audit tenure was not significant on audit quality was rejected. It was saved to assert that audit tenure was significant on the quality of audit work. The tenure of audit firm might influence the quality of audit work. With extended audit tenure the ability of the audit firm to be able to be familiar with the financial happening and events in its client companies might improve. This according to Richardson (2018) would enable the firm to know exactly what needed to be done in order to enhance the quality of the prepared financial statement. A longer audit tenure, for instance, had been found by Olorunleke (2018) to enhance continuous audit and save an auditor quality time that might be deployed in the investigation and gathering of evidences leading to possible materials mis-statement in the prepared financial statement. Adenigbagbe (2017) argued that audit tenure should be reasonably long but not too long in order for the audit firm to save itself from the invested interest in its client company. The regression coefficient obtained for the variable of audit tenure was 4.66 with significant t-statistics value of 7.81. This revealed that there was a significant positive relationship between audit tenure and quality of audit work. Hence, a 1% increase in audit tenure might lead to 4.66% improvement in the quality of the audit work. The sign of the variable of audit tenure was in tandem with a priori expectation. Therefore, audit tenure might be one of the factors that influenced quality of audit greatly in Nigeria quoted companies.

It was discovered that audit size was significant on the quality of the audited financial statement in Nigeria quoted companies. This assertion was premised on the fact that the p-value of the t-statistics computed for audit firm size of 0.0000 was less than the critical value of 5%. The ability of an auditor to add value to its client prepared accounts might depend on the size of the audit firm. For instance, the big 4 audit firm in Nigeria had the capacity to audit large firm with many subsidiaries without compromising quality. This was made possible due to the numbers of qualified auditors working in these firms. These firms had been known for carrying out large audit assignment due to the quality and professional competency of their staffs which many of the smaller audit firms in Nigeria did not possess. Ojo (2018) further explained that the size of audit firm might determine greatly the capacity of work done by the firm. Also, the ability of an audit firm to be able to objectively carry out its audit effective by producing audit work that was above board might depend on the size of its employee and their competency. The regression coefficient obtained for the test variable was 0.96 with significant t-statistics value of 4.15. This indicated that there was a significant positive relationship between audit firm size and quality of audit work. Therefore, a 1% increase in audit firm size might lead to 0.96% improvement in audit quality. The sign of the variable of size was in tandem with a priori expectation and hence, audit firm size might be a determinant of audit quality in Nigeria quoted firm.

The amount of auditor client profitability might determine greatly the quantities of audit works to be done in order to unravel adequately whether the company true profit position was wrong or not. Thus, looking further at the result in table 3, it was observed that the p-value of the t-statistics computed for profitability of 0.2367 was greater than the critical value of 5%. This showed that profitability did not affect audit quality in the selected quoted companies. The implication of this was that the selected companies did not make supernormal profits that might call for thorough audit work that could reveal the circumstance that encouraged the profit. With the normal profit level realized by the quoted companies the audit firm just wanted to know whether these profits reflected the true profitability performance in these companies. This called for adequate audit work. The
The result of the other test statistics computed for the study showed that audit fee and audit quality were positively related. For instance, it was found that the coefficient of determination (R2) obtained for the test was 0.89. This value implied that 89% of audit quality in Nigeria quoted companies can be traced to the audit fee payable to auditor, audit firm tenure, audit firm size, profitability of the client company and leverage. More so, the p-value of the F-statistics obtained for the test variable was 0.0000 with significant F-statistics value of 77.43. The value indicated that the null hypothesis which stated that audit fee was not significant on audit quality in Nigeria quoted companies was rejected. It was saved to assert that audit fee was significant on audit quality in Nigeria quoted companies. In addition, the Durbin-Watson statistics computed for the test was 1.608009. This revealed that the variables of the study were freed from the problem of auto-correlation. On this premise, therefore, audit fees might be a good determinant of audit quality in the Nigerian quoted firms. The information criterion obtained showed that audit fee and its allied variables gave good information on audit quality. All other deviations were within the acceptable limit.

VIII. CONCLUSION AND RECOMMENDATION

Conclusions

Based on the result of the study obtained it might be concluded that audit fee was significant and positively related to audit quality in Nigeria quoted companies. Also, audit tenure, audit firm size and leverage were all significant and positively related to audit quality in the selected quoted companies. It was found that profitability was not significant on audit quality but positive. On this basis, the study might further concluded that audit fee, audit tenure, audit firm size, leverage and profitability were determinants of audit quality in Nigeria quoted companies.

Recommendations

The following recommendations are suggested for the paper.

- There is need for the management of the selected companies to take audit of their prepared financial statement seriously. The company can do by not owning their auditors. Thus, to enhance the quality of the audited financial statement audit firm must be paid their remuneration promptly and adequately.
- Furthermore, the management of the selected quoted must not extend audit firm tenure unreasonably without any reason for doing that. Audit firm on the other hand should not go beyond the limit of tenure stipulated in their professional code of conduct in order to avoid being compromised through invested interest.
- Smaller audit firm should try to partner with bigger one through effective joint venture agreement. This is necessary in order to enhance the professional experience of the smaller audit firms.
- The selected quoted companies must not acquire too much leverage in order to avoid
business risk that may affect their profitability level greatly.

REFERENCES


