

Audit Quality Determinants: Evidence from Quoted Health Care Firms in Nigeria

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Abstract *The objective of this study is to ascertain the determinants of audit quality with a focus on healthcare firms listed on the floor of Nigeria Stock Exchange from 2010-2016. This study made use of secondary data obtained from fact books, annual reports and account of selected healthcare firms under study. The relevant data were subjected to statistical analysis using Pearson coefficient of correlation, Ordinary Least Square (OLS) and Granger causality test with the aid of E-view 9.0. The result of this study revealed that there is a positive and statistically significant relationship between audit independence, audit tenure, audit firm size and audit quality of healthcare firms listed on the floor of Nigerian Stock Exchange at 5% level of significance. The study recommended among others that Audit firms should ensure that their staff are independent as this is likely to enhance audit quality.*

Key words Audit report, audit quality, audit tenure

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1. Introduction

The auditing and the audit process provide an evaluation of the probability of material misstatements and reduce the possibility of undetected misstatement to a reasonable or appropriate assurance level (Watts and Zimmerman, 1986; Knechel, 2009). Consequently, auditing has been acknowledged to influence financial reporting and provide robust impact on investors' confidence (Levitt, 1998). Essentially, external auditors typically perform significant and greatly challenging tasks in guaranteeing the credibility of financial reports (Mautz and Sharaf, 1961; Wallace, 1987). In view of the onerous challenges that face the audit function, some studies (Becker *et al.*, 1998; Bauwhede *et al.*, 2000; Heninger, 2001; Ebrahim, 2001; Piot and Janin, 2005; Gerayli *et al.*, 2011) have attempted to ascertain any noticeable relationship between auditor tenure, auditor independence and audit firm size and have tried to demonstrate the impact of this relationship on audit quality.

Investors and other stakeholders are concerned with the safety of their assets. Shareholders delegate rights to managers to act in the principal's best interest. This separation of ownership from control implies a loss of effective control by shareholders and taxpayers over managerial decisions hence concern over the safety of their investment (Amahalu *et al.*, 2017). It is therefore important that good audit quality and accountable policy practices are adopted to achieve organizational goals of safeguarding shareholders asset and wealth maximization.

Corporate scandals like Enron debacle and Andersen collapse confirmed a requirement for high quality audit and considerable attention to different factors that may have effect on audit quality (Abiahu and Amahalu, 2017). High quality audit refers to the production of financial information without misstatements, omissions or biases. From an agency theory perspective (Dang, 2004) argues that audited financial statements are a monitoring mechanism to provide assurance for users of financial information. Amahalu and Ezechukwu (2017) defined audit quality by two-dimensional definition: first, detecting

misstatements and errors in financial statement and second, reporting these material misstatements and errors. Due to this fact that these characteristics are largely unobservable, different proxies have been used by researchers to measure audit quality like: audit independence, audit tenor, audit firm size, audit hours, audit fees, reputation, litigation rate and discretionary accruals. Although so many different proxies have been utilized, (Lennox, 1999) believed that most researchers generally agree that the size or brand name of audit firms is an appropriate indicator of audit quality. Audit quality has been investigated within a variety of perspectives in the literature like: independence, ethics, judgments, reduced audit quality, client services and public sector.

Board of directors is responsible for accounting for the daily activities in organizations and rendering proper stewardship on how the financial resources of the shareholders were managed. Towards this end, shareholders, at Annual General Meetings, appoint an external auditor to provide assurance services that the financial statements prepared by Management represent the underlying financial transactions of the organization for the period covered. The reality facing stakeholders of financial reporting is that corporate financial reporting failures have been on the increase, especially in the past decade.

Window dressed accounts raised concerns in the USA with the collapse of the energy corporation Enron in 2001. The company filed for bankruptcy after adjusting its accounts. WorldCom, Global Crossing and Rank Xerox are other companies in the USA with similar problem. In Italy, Parmalat failed in 2003 when it engaged in accounting scandals worth 8 billion Euros (Demaki, 2011; Norwani *et al.*, 2011; Ezechukwu and Amahalu, 2016). In New Zealand, Allied Nationwide Finance failed in September 2010 while NZF Money became bankrupt in January, 2011 (Lianne, 2011). Nigeria has had its own share of financial reporting failures with the problems in Cadbury Nigeria Plc. in 2006; Afribank Nigeria Plc faced problem of financial reporting in 2009; Intercontinental Bank Plc (2009). Countries all around the world have set codes of best practice as guidelines to address governance and financial reporting anomalies: Cadbury Report was produced in United Kingdom, Sarbanes Oxley in United States, The Dey Report in Canada, the Vienot Report in France, the Olivencia Report in Spain, the King's Report in South Africa, Principles and Guidelines on Corporate Governance in New Zealand and the Cromme Code in Germany. The goal of these regulations was to improve firms' corporate governance environments (Bhagat and Bolton, 2009). In Nigeria, the Regulatory authorities have responded by compelling companies to comply with stringent corporate governance codes. (Idornigie, 2010) reports that Nigeria has multiplicity of codes of corporate governance with distinctive dissimilarities namely:

- i. Security and Exchange Commission (SEC) code of corporate governance (2003) addressed to public companies listed in the Nigeria Stock Exchange (NSE). The code was reviewed in 2011;
- ii. Central Bank of Nigeria (CBN) Code (2006) for banks established under the provision of the Bank and Other Financial Institutions Act (BOFIA);
- iii. National Insurance Commission (NAICOM) Code (2009), directed at all insurance, reinsurance, broking and loss adjusting companies in Nigeria; and
- iv. Pension Commission (PENCOM) Code (2008), for all licensed pension fund operators.

Despite the interventions of the regulatory authorities, the challenges of ensuring credibility in financial reporting and auditing are still prevalent. It therefore becomes pertinent to investigate the factors affecting audit quality in order to enhance the relevance of audit and assurance functions. Nigeria is currently experiencing a paucity of research in this direction. This study is expected to broaden extant literature and provide essential findings to assist stakeholders of financial reporting and auditing in the country in formulating and administering relevant and pragmatic policies to enhance corporate financial reporting.

1.1. Objectives of the Study

The main objective of the study is to ascertain the factors that determine audit quality in health care firms listed in Nigerian Stock Exchange. Specifically this study determined:

1. The extent to which audit independence relates with audit quality of quoted health care firms in Nigeria.
2. The extent to which audit tenure relates with audit quality of quoted health care firms in Nigeria.

3. The extent to which audit firm size relates with audit quality of quoted health care firms in Nigeria.

1.2. Research Hypotheses

In line with the objectives of the study the following alternative hypotheses were tested:

1. There is significant relationship between audit independence and audit quality of quoted health care firms in Nigeria.
2. There is significant relationship between audit tenure and audit quality of quoted health care firms in Nigeria.
3. There is significant relationship between audit firm size and audit quality of quoted health care firms in Nigeria.

2. Literature review

2.1. Audit quality

Audit quality is debatable but difficult to understand (Knechel 2013), because an audit process involves implementation of testing procedures that could not be observed by users of the financial statement (DeAngelo, 1981; Hussainey, 2009). DeAngelo (1981) defines audit quality as the market-assessed joint probability that a given auditor will both (a) discover a breach in client's accounting systems, and (b) report the breach. The auditor ability to detect any error is related to the auditor competence, and willingness to report the errors is related to the auditor independence (Shafie 2009).

Lee, Lie and Wang (1999) in Widiastuty and Febrianto (2010) defined audit quality as the probability that an auditor will not release an audit report with unqualified opinion for a financial statement that contains any material misstatement. Hussainey (2009) defined audit quality as the accuracy of information an auditor provided for the investors. Davidson and New (1993) defined audit quality as auditor capabilities to detect and eliminate any misstatements and manipulations in financial statements. Moreover, Wallace (1980) in Watkins (2004) suggests that audit quality is determined by the auditor competence in reducing noises and biases and in enhancing the fineness of accounting data.

In this research, audit quality is defined as the capability of auditor in discovering and reporting any errors in a financial statement. The most common errors made in financial statement are aggressive income or discretionary accruals. Discretionary accruals are accruals that could be manipulated by management and usually intended to achieve a desired profitability or income. This is caused by the management that has an authority in control and creating policies, including those company accounting policies that favor their position as managers. An auditor is obligate to disclose non-fair discretionary accruals to prevent misstatement of financial statement. Audit quality (AUDQ) are the dependent variable contained in this study. $AUDQ = \text{LOG of total number of staff audit firm}$.

2.2. Audit independence

Audit Independence may be defined as an auditor's unbiased mental attitude in making decisions throughout the audit and financial reporting process. Independence refers to the quality of being free from influence, persuasion or bias, the absence of which will greatly impair the value of the audit service and the audit report (Sweeney, 1994). An auditor's lack of independence increases the possibility of being perceived as not being objective. This means that the auditor will not likely report a discovered breach (Deangelo, 1981). Prior studies also identified that many factors affected auditor's independence, such as non-audit services (NAS), audit fee, level of competition, audit tenure, size of the audit firm and audit committee (Shocley, 1982; Gul, 1989; Houghton and Ikin 2001; Craswell *et al.*, 2000, and Firth 1997). In this study audit fees (AUDF) is applied to measure auditor independence as; Natural Log of the Audit Fees Paid by the company.

2.3. Audit tenure

Auditor Tenure is defined in this study as the length of the auditor-client relationship. A rather too long association between the auditor and his client may constitute a threat to independence as personal

ties and familiarity may develop between the parties, which may lead to less vigilance on the part of the auditor and even to an obliging attitude of the latter towards the top managers of the company. Aside from this threat to independence, the audit engagement may become routine over time, and if so, the auditor will devote less effort to identifying the weaknesses of internal control and risk sources (Okolie, 2014).

In this study we measured audit tenure (AUDTEN) as; Length of auditor-client relationship: '1' if 3 yrs+ and '0' if otherwise.

2.4. Audit firm size

As noted by Salehi and Mansoury (2009), the size of an audit firm has been used as a surrogate for audit quality, meaning that larger audit firms have a bigger reputation to safeguard and therefore will ensure a more independent quality audit service; they have better financial muscles, research facilities, superior technology and more talented employees to undertake large company audits. Their larger client portfolios enable them to resist management pressure, whereas smaller firms provide more personalized services due to limited client portfolios and are expected to succumb to management requirements (Lys and Watts, 1994).

In this research work we measured audit firm size (AUDFSZ); by the likelihood that a sampled company employs the service of one of the Big 4 audit firms (Akintola Williams Deloitte, Pricewaterhouse Coopers, Ernst and Young, KPMG). A dummy value of 1 is used if a firm uses any of the Big 4 audit firm and 0 if otherwise.

2.5. Audit independence and audit quality

Prior studies assert that high fees paid by a company to its external auditor increase the economic bond between the auditor and the client and thus, the fees may impair the auditor's independence (Frankel et al, 2002; Li and Lin, 2005). The impaired independence results in poor audit quality and allows for greater earnings management and lower earnings quality (Okolie, 2014).

In Craswel, Stokes and Laughton (2002), it was shown that auditor independence may be related to audit fee dependence. Using the propensity of auditors to issue qualified audit reports measured by the ratio of audit fee to total national fee of the audit firm, Craswel *et al.*, (2002) argued that in a situation where public disclosure of audit fee and non-audit fee is mandatory, auditors may be willing to issue qualified audit opinions irrespective of the economic importance of the client to the auditor and issue unqualified opinion if otherwise.

IAA (2010) states that independence is an expected auditor behavior that directs an auditor does not have personal interest in doing his/her jobs, because it will be contrary to integrity and objectivity principles. If a public accountant is not independent of the client, his/her audit opinion will be useless because the purpose of this opinion is to increase the credibility of financial statement as a management assertion (Aren, 2010). Alim (2007) in his research showed empirical evidence that independence affects audit quality.

2.6. Audit tenure and audit quality

The prolonged association between an audit firm and company-client could lead to the closeness of the auditing firm with its company-client's management which in turn makes it difficult for the auditor to freely express his professional opinion (Larvin, 1976 and 1977). Previous works done by Barkess and Simnett (1994); De Ruyter and Wetzels (as cited in Bamber and Iyer, 2007); Defond *et al.* (2002); Geiger and Rangunandan (2002); Carcello and Nagy (2004), have shown that lengthy audit firm tenure leads to a reduced propensity of issuing a qualified audit report. Complacency, lack of innovation, less rigorous audit procedures, and a learned confidence may arise after long association with the company-client (Shockley, 1982). Professional accounting bodies like AICPA (1978 and 1992), ICAA and CPA Australia (2001) and Coordinating Group on Audit and Accountant Issues (2003) also expressed concerns that the length of audit client relationship may impair audit quality.

Palmrose (1988) sees audit quality as a level of assurance. Naturally, the purpose of an audit is to provide an assurance on the financial statements, the quality of audit is thus the degree of such assurance that there are no material misstatements in the financial statements.

An experimental study by Knapp (1991) tends to establish a connection between audit tenure and competence. As perceived by US audit committee members, the likelihood that the auditor will detect an anomaly increases in the first years of his mandate, and then decreases gradually, reaching its weakest level after 20 years of service. Hence, as a whole, a negative association is commonly assumed between auditor tenure and the quality of audit.

2.7. Audit firm size and audit quality

Firth and Liao Tan (1998) in Wibowo and Rosienta (2009) stated that audit quality is often tied to an audit firm scale. DeAngelo (1981) maintains that big audit firms have a superior audit quality, since they already have invested in large audit technology and staff training, and thus they are more competent and more accurate in detecting the problems related to misstatement and going concern assumptions than small audit firms. Titard (1971), Hartley and Ross (1972), and Shockley (1981) in Wati and Bambang (2003) mentions two key reasons for why big audit firms are more independent than small ones, namely: (1) separation of a department that delivers audit services and one that delivers non-audit services and (2) the revenues gained by an accounting firm is influenced by not only one client.

Lee *et al.* (1993) in Febrianto and Widiastuty (2010) stated that if both auditors and their clients have equally relatively small size, then there is a high probability that the income of the auditors relies on the audit fee they gain from their clients. Conversely, big audit firms incline to be more independent of their clients, either the clients are big or small in size.

2.8. Agency Theory

Agency theory (Watts and Zimmerman 1978, 1986a, 1986b) suggests that the auditor is appointed in the interests of both the third parties as well as the management. A company is viewed as a web of contracts. Several groups (suppliers, bankers, customers, employees and so on) make some kind of contribution to the company for a given price. The task of the management is to coordinate these groups and contracts and try to optimize them; low price for purchased supplies, high price for sold goods, low interest rates for loans, high share prices and low wages for employees. In these relationships, management is the agent, which tries to gain contributions from principals (bankers, shareholders, employees and so on).

2.9. Stakeholder Theory

This study is anchored on the stakeholder theory. The stakeholder theory evolved from the agency theory. The agency theory sees any modern organization as an aggregation of the interactions between the principals and their agents. The principals are the shareholders who are the owners of the entity while the agents are the managers who are usually the experts with control over the day-to-day affairs of the entity. This relationship, as is observed by analysts, creates information asymmetry with the managers having information advantage. This creates the need for proper monitoring which has brought to the fore role of the auditor, who is required to provide an independent examination of the affairs of the entity so as to be able to express an opinion on the financial statements of the entity. Such expressed opinion by the auditor is basis for “faith” and “confidence” in the financial statements.

The stakeholder theory is a natural extension of the agency theory. The theory holds that every entity involves the interactions of more than the principals and their agents. Such relationships will also involve the interaction of everyone with a stake in the affairs of the entity: the host community, creditors, bankers, government and others. This means that there is greater information demand on the entity; this therefore places greater demands on the auditor to ensure the representativeness of the financial statements (Freeman, 1984; Jones and Wicks, 1999; Donaldson and Preston, 1995; Jones, 1995).

2.10. Empirical review

Amahalu and Ezechukwu (2017) ascertained the determinants of audit quality with a focus on selected Deposit Money Banks listed on the floor of Nigeria Stock Exchange from 2010-2015. This study made use of secondary data obtained from fact books, annual reports and account of selected banks under study. The relevant data were subjected to statistical analysis using Pearson coefficient of correlation,

Ordinary Least Square (OLS) and Granger causality test with the aid of E-view 9.0. The result of this study revealed that there is a positive and statistically significant relationship between audit fees, audit tenure, audit firm size and audit quality. It was also empirically verified that audit fees, audit tenure, audit firm size have a statistically significant relationship with audit quality of banks listed on the floor of Nigerian Stock Exchange at 5% level of significance. The study recommends among others that auditor-client relationship should not exceed 3 years, because the auditor may develop close relationship with the client and become more likely to act in favour of management, resulting in reduced objectivity and audit quality.

Enofe *et al.* (2013) analyzed the determinants of audit quality in the Nigerian business environment. The research empirically examined the relationship between audit quality, engagement and firm related characteristics such as audit tenure, audit firm size, board independence and ownership structure. A regression model was used to analyze the existence of significant relationships between audit quality and the firm/audit related characteristics. 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. The study recommends the sustenance and possible improvements on the non-executive board composition of organizations.

Chinwe and Chinwuba (2012) empirically examined the relationship between auditor's tenure, audit firm size and auditor's independence. A cross-sectional survey research design was used for the purpose of this paper with a sample size of fifty (50) audit firms in Edo and Lagos States in Nigeria. The statistical technique used for this paper was the binary logistic regression. From our findings, auditor's tenure (TEN) does not compromise the independence of the auditors and audit firm size (AUD) does not also compromise the independence of the auditor. It was therefore recommended that to ensure that the independence of an auditor is not compromised; the length of audit tenure should not exceed 5years.

Adeyemi *et al.* (2012) investigated on the factors affecting audit quality in Nigeria. They investigated the factors affecting audit quality in Nigeria. The primary data were supplied by 430 respondents across several stakeholders in the fields of financial reporting and auditing. The secondary data were generated from the financial statements of forty annual reports of companies quoted on the Nigerian Stock Exchange. The test of hypotheses and other analysis of data were done using SPSS, version 17. The tests revealed that among others, multiple directorships is the most significant in affecting audit quality in Nigeria. In addition, it is found that provision of non-audit service would likely have a significant effect on the audit quality in Nigeria. However, the study did not find audit firm rotation to be a significant factor for enhancing audit quality in Nigeria. The study recommends efforts should be made to strengthen audit quality if the quality of financial reporting was to be improved. Also, regulatory authorities should ensure that the same firm do not render audit services and offer management advisory services in the same company simultaneously.

Dunakhir (2016) in his work factors associated with audit quality: evidence from an emerging market. The study investigated the attributes of audit quality in Indonesia by considering input from groups of auditors, audit clients and external statement users. Beside the facts of the important to consider the issue from different groups of stakeholders such as audit committee chairpersons and loan officers, there have been very few published empirical studies of perceived audit quality in Indonesia from those groups' perspectives. This study attempts to address the gap by identifying the major attributes that enter into the determination of audit quality in Indonesia based on the perspectives of different groups of auditors, clients and external users. Survey questionnaires were sent to a random sample of the three groups. The result shows that there are significant difference perceptions between the groups.

Shivaram *et al.* (2015) conducted a study on the determinants of audit quality; the study used a variation of Big N auditor, discretionary accruals, audit fees, accrual quality, going-concern opinions, or meet or beat the quarterly earnings target as a proxy for audit quality. The study provide evidence on the construct validity of these measures by evaluating whether they are able to successfully predict alleged audit deficiencies in engagements that are the subject of non-dismissed lawsuits and SEC's AAERs filed against auditors over the violation years 1978-2011. The presence of a Big N auditor signing off on the statements of the company during the violation periods is negatively associated with the total number of audit quality allegations and this result is driven by a lower incidence of allegations that a Big N auditor did not exercise due care in the audit. Abnormal audit fees during the violation period are positively associated with the number of alleged audit quality violations. The relation between abnormal audit fees and specific

allegations is mixed in that such fees are negatively associated with allegations that the audit was inadequately planned, financial statements were not GAAP compliant and auditor did not assess audit risk adequately but positively associated with other allegations. The proportion of non-audit fees to total fees is associated with accusations of independence violations. However, the other proxies are not systematically associated with audit deficiencies.

3. Methodology of research

3.1. Research Design

This study adopts ex-post facto research design. Ex-post facto research design is used to establish a cause and effect relationship among the variables that correlate.

3.2. Population of the Study

The population of this study comprises all the ten (10) healthcare firms listed on the Nigeria Stock Exchange fact book and published in the Nigeria Stock Exchange website as at 31st December, 2016. These include: Ekocorp Plc, Union Diagnostic and Clinical Services Plc, Morison Industries Plc, Evans Medical Plc, Fidson Healthcare Plc, GlaxoSmithKline Consumer Nigeria Plc, May and Baker Nigeria Plc, Neimeth International Pharmaceuticals Plc, Nigeria German Chemicals Plc and Pharma-Deko Plc.

3.3. Sample Size

The ten (10) quoted healthcare firms represent the sample size for this study, for a seven (7) year period spanning from 2010–2016. The seven (7) years period is to ensure robustness of empirical results.

3.4. Source of Data

The nature and source of data for the study was essentially secondary data. The secondary and panel data were collected from publications of the Nigeria Stock Exchange (NSE) and the annual report and accounts of the quoted healthcare firms as well as their respective notes to the accounts. The relevant variables for which data were sourced include: Audit quality and the explanatory variable of audit independence, audit tenure and audit firm size.

3.5. Research Variables

Independent Variables

The driver variables of the independent variables are:

i. Audit Independence (AUDI)

AUDI: Natural log of audit fees paid by the healthcare firms

ii. Audit Tenure (AUDT)

AUDT: Length of auditor-client relationship “1” if 3 years and “0” if otherwise.

iii. Audit Firm Size (AUDFSZ)

AUDFSZ: measured by the likelihood that a sampled company employs the services of one of the big 4 audit firms. A dummy value of 1 is used if a firm uses any of the big 4 audit firm and 0 if otherwise.

Dependent Variables

Audit quality (AUDQ) is the dependent variable contained in this study.

AUDQ = LOG of total number of staff in audit firms

Control Variables

The following control variables were included:

(a) Company Size (CSZ)

CSZ: Is measured by the natural log of total assets.

(b) Board Ownership (BOWN)

$$\text{BOWN} = \frac{\text{Ratio of shares held by directors}}{\text{Total outstanding shares}}$$

Models Specification

The following models will be used to test the hypotheses as follows:

$$\text{AUDQ}_{it} = \beta_0 + \beta_1\text{AUDI}_{it} + \beta_2\text{CSZ}_{it} + \beta_3\text{BOWN}_{it} + E_{it} \tag{1}$$

$$\text{AUDQ}_{it} = \beta_0 + \beta_1\text{AUDT}_{it} + \beta_2\text{CSZ}_{it} + \beta_3\text{BOWN}_{it} + E_{it} \tag{2}$$

$$\text{AUDQ}_{it} = \beta_0 + \beta_1\text{AUDFSZ}_{it} + \beta_2\text{CSZ}_{it} + \beta_3\text{BOWN}_{it} + E_{it} \tag{3}$$

Where:

β_0 = Constant term (intercept);

β_{it} = Coefficients to be estimated for firm i in period t;

E_{it} = Error term/unexplained variable(s) for firm i, in period t .

4. Data Analysis

Table 1. Correlation matrix of variables

	AUDQ	AUDI	AUDFSZ	AUDT	CSZ	BOWN
AUDQ	1.0000	0.2846	0.1016	0.1839	0.0366	-0.3220
AUDI	0.2846	1.0000	-0.1045	-0.6796	-0.4778	0.1320
AUDFSZ	0.1016	-0.1045	1.0000	-0.0476	0.2694	0.3134
AUDT	0.1839	-0.6796	-0.0476	1.0000	0.5568	-0.1586
CSZ	0.0366	-0.4778	0.2694	0.5568	1.0000	-0.3892
BOWN	-0.3220	0.1320	0.3134	-0.1586	-0.3892	1.0000

Source: Researcher’s computation using E-View 9.0, 2017

Interpretation of Correlation Matrix Result

It is indicated in table 4.2 that AUDQ has a positive relationship with all the explanatory variables except for BOWN with a negative value of 0.3220.

4.1. Test of Hypotheses

Test of Null Hypothesis 1

H_{01} : Audit independence has no significant association with audit quality of quoted healthcare firms in Nigeria.

Model Specification

$$\text{AUDQ}_{it} = \beta_0 + \beta_1\text{AUDI}_{it} + \beta_2\text{CSZ}_{it} + \beta_3\text{BOWN}_{it} + E_{it} \text{ (Ho}_1\text{)}$$

Interpretation of Regressed Result

The regressed coefficient correlation result in table 2 shows the existence of a positive and statistically significant relationship between AUDQ and AUDI ($\beta_1=0.066828$) at 5% significant level. The probability value for the slope coefficient shows that $P(x_1=0.0067 < 0.05)$. This implies that AUDI has a statistically significant relationship with AUDQ at 5% significance level. The coefficient of determination obtained is 0.47 (47%), which is commonly referred to as the value of adjusted R^2 . The cumulative test of hypothesis using adjusted R^2 to draw statistical inference about the explanatory variables employed in this regression equation, shows that 47% of the systematic variations in the dependent variable can be jointly predicted by the independent variable. 53% was explained by unknown variables that were not included in

the model. The Durbin-Watson statistic of 1.812777 indicates that there is no auto-correlation problem. The overall significance of the model Prob > F-statistic (0.000006) is statistically significant at 5%.

Table 2. OLS Regression Analysis showing the association between AUDQ and AUDI

Dependent Variable: AUDQ
 Method: Least Squares
 Date: 07/20/17 Time: 14:49
 Sample: 2010 2016
 Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.261179	4.414409	-0.059165	0.0547
AUDI	0.066828	0.074904	0.892184	0.0067
CSZ	0.085697	0.473894	0.180836	0.0624
BOWN	-2.869414	3.323954	-0.863253	0.0212
R-squared	0.516873	Mean dependent var		0.626000
Adjusted R-squared	0.474691	S.D. dependent var		0.502730
S.E. of regression	0.544875	Akaike info criterion		1.912654
Sum squared resid	1.781333	Schwarz criterion		2.033688
Log likelihood	-5.563269	Hannan-Quinn criter.		1.779880
F-statistic	0.553863	Durbin-Watson stat		1.812777
Prob(F-statistic)	0.000006			

Source: Researcher’s computation using E-View 9.0, 2017

Model Specification

$$AUDQ = -0.261179 + 0.066828AUDI$$

The model shows that for there to be one unit increase in AUDQ, there will be 0.066828 multiplying effect of AUDI. The implication of the finding is that an increase in AUDI will definitely lead to an increase in AUDQ.

Decision Rule:

Accept the null hypothesis (H_0) if the p-value of the test is greater than 0.05, otherwise reject.

Decision:

The P-value of the test is 0.000006 which is less than 0.05. Hence, reject H_0 and Accept H_1 .

Conclusion:

Since the p-value of the test is less than 0.05, then there exists enough evidence to reject the null hypothesis and conclude that AUDI has a statistically significant relationship with AUDQ at 5% significant level.

Table 3. Granger Causality Test showing the Causality between AUDI and AUDQ

Pairwise Granger Causality Tests
 Date: 07/22/17 Time: 11:37
 Sample: 1 100
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
AUDI does not Granger Cause AUDQ	68	0.51058	0.0008
AUDQ does not Granger Cause AUDI		1.33792	0.0074

Source: Researcher’s computation using E-View 9.0, 2017

Decision Rule:

If the F-value of the causality test is statistically significant at 5%, then causality is established. This implies that the Independent variable granger causes the dependent variable. Hence, H_1 is accepted, otherwise accept H_0 .

Interpretation of Post Regression Analysis

Table 3 shows that there is a bilateral causality between AUDI and AUDQ since the P-value (0.0008) is statistically significant at 5% level. Moreover, at two (2) lags there is a statistically significant relationship between AUDI and AUDQ. On the other hand, there is no “reverse causation” from AUDQ to AUDI. This reinforces the fact that AUDI Granger Causes AUDQ. Consequently, the null hypothesis is rejected for the alternative which states that AUDI has a statistically significant relationship with AUDQ of healthcare firms in Nigeria.

Test of Null Hypothesis II

Ho₂: Audit tenure has no significant relationship with audit quality of quoted healthcare firms in Nigeria.

Model Specification

$$AUDQ_{it} = \beta_0 + \beta_1AUDT_{it} + \beta_2CSZ_{it} + \beta_3BOWN_{it} + E_{it} \text{ (Ho}_2\text{)}$$

Table 4. OLS Regression Analysis testing the association between AUDQ and AUDT

Dependent Variable: AUDQ
 Method: Least Squares
 Date: 07/22/17 Time: 11:06
 Sample: 1 100
 Included observations: 70

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.758791	0.175423	4.325503	0.0000
AUDT	0.182213	0.202204	0.901134	0.0000
CSZ	-0.014270	0.021669	-0.658565	0.0118
BOWN	-1.519336	2.507604	-0.605892	0.0460
R-squared	0.616095	Mean dependent var		0.686795
Adjusted R-squared	0.514652	S.D. dependent var		0.879586
S.E. of regression	0.886007	Akaike info criterion		2.634993
Sum squared resid	75.36073	Schwarz criterion		2.739200
Log likelihood	-127.7497	Hannan-Quinn criter.		2.677168
F-statistic	0.523479	Durbin-Watson stat		1.194215
Prob(F-statistic)	0.000000			

Source: Researcher’s computation using E-View 9.0, 2017

Interpretation of Regressed Result

The regressed coefficient correlation result in table 4 shows the existence of a positive and statistically significant association between AUDQ and AUDT ($\beta_1=0.182213$) at 5% significant level. The probability value for the slope coefficient shows that $P(x_1=0.0000 < 0.05)$. This implies that AUDT has a statistically significant relationship with AUDQ at 5% significance level. The coefficient of determination obtained is 0.51 (51%), which is commonly referred to as the value of adjusted R^2 . The cumulative test of hypothesis using adjusted R^2 to draw statistical inference about the explanatory variables employed in this regression equation, shows that 51% of the systematic variations in the dependent variable can be jointly predicted by the independent variable. 49% was explained by unknown variables that were not included in the model. The Durbin-Watson statistic of 1.194215 indicates that there is no auto-correlation problem. The overall significance of the model Prob > F-statistic (0.000000) is statistically significant at 5%.

Model Specification

$$AUDQ = 0.758791 + 0.182213AUDT$$

The model shows that for there to be one unit increase in AUDQ, there will be 0.182213 multiplying effect of AUDT.

The implication of the finding is that an increase in AUDT will definitely lead to an increase in AUDQ.

Decision Rule:

Accept the null hypothesis (H_0) if the p-value of the test is greater than 0.05, otherwise reject.

Decision:

The P-value of the test is 0.000000 which is less than 0.05. Hence, reject H_0 and Accept H_1 .

Conclusion:

Since the p-value of the test is less than 0.05, then there exists enough evidence to reject the null hypothesis and conclude that AUDT has a statistically significant relationship with AUDQ at 5% significant level.

Table 5: Granger Causality Test showing the Causality between AUDT and AUDQ

Pairwise Granger Causality Tests
 Date: 07/22/17 Time: 11:40
 Sample: 1 100
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
AUDT does not Granger Cause AUDQ	68	1.93318	0.0000
AUDQ does not Granger Cause AUDT		0.28486	0.7528

Source: Researcher’s computation using E-View 9.0, 2017

Decision Rule:

If the F-value of the causality test is statistically significant at 5%, then causality is established. This implies that the Independent variable granger causes the dependent variable. Hence, H_1 is accepted, otherwise accept H_0 .

Interpretation of Post Regression Analysis

Table 5 shows that the there is a unilateral causality between AUDT and AUDQ since the P-value (0.0000) is statistically significant at 5% level. Moreover, at two (2) lags there is a statistically significant relationship between AUDT and AUDQ. On the other hand, there is no “reverse causation” from AUDQ to AUDT. This reinforces the fact that AUDT Granger Causes AUDQ. Consequently, the null hypothesis is rejected for the alternative which states that AUDT has a statistically significant relationship with AUDQ of healthcare firms in Nigeria.

Test of Null Hypothesis III

H_{03} : Audit firm size has no significant relationship with audit quality of quoted healthcare firms in Nigeria.

Model Specification

$$AUDQ_{it} = \beta_0 + \beta_1AUDFSZ_{it} + \beta_2CSZ_{it} + \beta_3BOWN_{it} + E_{it} \text{ (} \mathbf{H_{03}} \text{)}$$

Interpretation of Regressed Result

The regressed coefficient correlation result in table 6 shows the existence of a positive and statistically significant association between AUDQ and AUDFSZ ($\beta_1=0.344439$) at 5% significant level. The probability value for the slope coefficient shows that $P(x_1=0.0008<0.05)$. This implies that AUDFSZ has a statistically significant relationship with AUDQ at 5% significance level. The coefficient of determination obtained is 0.41 (41%), which is commonly referred to as the value of adjusted R^2 . The cumulative test of hypothesis using adjusted R^2 to draw statistical inference about the explanatory variables employed in this

regression equation, shows that 41% of the systematic variations in the dependent variable can be jointly predicted by the independent variable. 59% was explained by unknown variables that were not included in the model. The Durbin-Watson statistic of 1.141686 indicates that there is no auto-correlation problem. The overall significance of the model Prob > F-statistic (0.002788) is statistically significant at 5%.

Table 6. OLS Regression Analysis testing the association between AUDQ and AUDFSZ

Dependent Variable: AUDQ
 Method: Least Squares
 Date: 07/22/17 Time: 11:08
 Sample: 1 100
 Included observations: 70

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.100586	0.242317	4.541921	0.0000
AUDFSZ	0.344439	0.201644	1.708151	0.0008
CSZ	-0.021288	0.021884	-0.972730	0.0331
BOWN	-1.432746	2.479368	-0.577868	0.0647
R-squared	0.537041	Mean dependent var		0.686795
Adjusted R-squared	0.406948	S.D. dependent var		0.879586
S.E. of regression	0.876525	Akaike info criterion		2.613476
Sum squared resid	73.75647	Schwarz criterion		2.717682
Log likelihood	-126.6738	Hannan-Quinn criter.		2.655650
F-statistic	1.230890	Durbin-Watson stat		1.141686
Prob(F-statistic)	0.002788			

Source: Researcher’s computation using E-View 9.0, 2017

Model Specification

$$AUDQ = 1.100586 + 0.344439AUDFSZ$$

The model shows that for there to be one unit increase in AUDQ, there will be 0.344439 multiplying effect of AUDFSZ. The implication of the finding is that an increase in AUDFSZ will definitely lead to an increase in AUDQ.

Decision Rule:

Accept the null hypothesis (H_0) if the p-value of the test is greater than 0.05, otherwise reject.

Decision:

The P-value of the test is 0.002788 which is less than 0.05. Hence, reject H_0 and Accept H_1 .

Conclusion:

Since the p-value of the test is less than 0.05, then there exists enough evidence to reject the null hypothesis and conclude that AUDFSZ has a statistically significant relationship with AUDQ at 5% significant level.

Table 7. Granger Causality Test showing the Causality between AUDFSZ and AUDQ

Pairwise Granger Causality Tests
 Date: 07/22/17 Time: 11:41
 Sample: 1 100
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
AUDFSZ does not Granger Cause AUDQ	68	1.40370	0.0008
AUDQ does not Granger Cause AUDFSZ		0.23362	0.7921

Source: Researcher’s computation using E-View 9.0, 2017

Decision Rule:

If the F-value of the causality test is statistically significant at 5%, then causality is established. This implies that the Independent variable granger causes the dependent variable. Hence, H_1 is accepted, otherwise accept H_0 .

Interpretation of Post Regression Analysis

Table 7 shows that there is a unilateral causality between AUDFSZ and AUDQ since the P-value (0.0008) is statistically significant at 5% level. Moreover, at two (2) lags there is a statistically significant relationship between AUDFSZ and AUDQ. On the other hand, there is no “reverse causation” from AUDQ to AUDFSZ. This reinforces the fact that AUDT Granger Causes AUDQ. Consequently, the null hypothesis is rejected for the alternative which states that AUDFSZ has a statistically significant relationship with AUDQ of healthcare firms in Nigeria.

5. Findings, conclusions and recommendations

5.1. Summary of Findings

The findings of the study include:

1) Table 2 shows that $\text{Prob}(F\text{-statistic}) = 0.000006 < 0.05$, which was confirmed by the Granger Causality test in table 3 with the F-Statistic being significant at 5%; Prob. value = $0.0008 < 0.05$. It is therefore found that audit independence has a positive and statistically significant relationship with audit quality of healthcare firms in Nigeria at 5% level of significance.

2) Table 4 shows that $\text{Prob}(F\text{-statistic}) = 0.000000 < 0.05$, which was confirmed by the Granger Causality test in table 5 with the F-Statistic being significant at 5%; Prob. value = $0.0000 < 0.05$. It is therefore found that audit tenure has a positive and statistically significant relationship with audit quality of healthcare firms in Nigeria at 5% level of significance.

3) Table 6 shows that $\text{Prob}(F\text{-statistic}) = 0.002788 < 0.05$, which was confirmed by the Granger Causality test in table 7, indicating that the F-Statistic is significant at 5%; Prob. value = $0.0008 < 0.05$. It is therefore found that audit firm size has a positive and statistically significant relationship with audit quality of healthcare firms in Nigeria at 5% level of significance.

5.2. Recommendations

1. From the findings of this study, it follows that auditor independence is directly proportional to audit quality. Thus, Audit firms should ensure that their staff is independent as this is likely to enhance audit quality.

2. Healthcare firms in Nigeria, should always employ the services of one of the big audit firms since it results to improved audit quality, allows for greater earnings quality and lower earnings management.

3. Since audit tenure is directly proportional to audit quality, auditor-client relationship should not exceed 3 years, because the auditor may develop close relationship with the client and become more likely to act in favour of management, resulting in reduced objectivity and audit quality.

References

1. Abiahu, M.F.C., and Amahalu, N.N. (2017). Effect of taxation on dividend policy of quoted deposit money banks in Nigeria (2006-2015). *EPH International Journal of Business and Management Science*, 1-30.
2. Adeyemi, S. B. Okpala, O. and Dabor, E.L. (2012). Factors affecting audit quality in Nigeria, *International Journal of Business and Social Science* 3(20), 198-209.
3. Amahalu, N.N., Abiahu, M.F.C., and Obi, J.C. (2017). Comparative analysis of computerised accounting system and manual accounting system of quoted microfinance banks in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(2), 30-43.
4. Adeyemi, S. B., and Fagbemi, T. O. (2010). Audit quality, corporate governance and firm characteristics in Nigeria. *International Journal of Business and Management*, 5(5), 169-179.
5. Akhalumeh, P., Agweda, F. and Ogunkuade, Z. (2017). Corporate characteristics and audit quality: evidence from quoted firms in Nigeria, *Journal of Scientific Research and Studies*, 4(3), 59-66.

6. Ali, S. and Aulia, M.R.P. (2015), Audit firm size, auditor industry specialization and audit quality: An empirical study of Indonesian state-owned enterprises, *Research Journal of Finance and Accounting*, 6(22), 1-14.
7. Alim, MN, Trisni, H and Lilik, P. (2007). The effect of competence and independence to the audit quality, *Procedeeng of national accounting symposium x*, Indonesian Accounting Association, Makassar, Indonesia, 31-48.
8. Amahalu, N.N and Ezechukwu, B.O. (2017). Determinants of audit quality: Evidence from deposit money banks listed on Nigeria Stock Exchange. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(2), 117-130.
9. Arens, AA, Elder, RJ, and Beasley, MS 2010, *Auditing and assurance services: an integrated approach*, 13th eds, Prentice Hall Inc., New Jersey.
10. Bamber, M.E and Iyer, V.M. (2007). Auditors' Identification with their clients and its effect on auditors' objectivity. *Journal of Practice and Theory*, 26 (2)1-24.
11. Bhagat, S. and Bolton, B. (2009). *Sarbanes-Oxley, governance and performance*. Retrieved September 17, 2010 from SSRN: <http://ssrn.com/abstract=1361815>.
12. Cameran, M., Annalisa P., and Marco, T. (2008). *Auditor tenure and audit Change: Does mandatory auditor rotation really improve audit quality?* Working paper in the XXX EAA Annual Conference, Lisbon.
13. Carcello, J.V., and Nagy, A. L. (2004). *Audit firm tenure and fraudulent financial reporting*. Working Paper, University of Tennessee.
14. Chen, K. Y., Lin, K. L., Zhou, J., (2005). Audit quality and earnings management for Taiwan IPO firms. *Managerial Accounting Journal*, 20(1), 86-104.
15. Chinwe, C.A. and Chinwuba, O. (2012). Auditors independence, auditors' tenure and audit firm size in Nigeria. *Research Journal of Finance and Accounting*, 3(10), 137-142.
16. Choi, J.H., Kim, F., Kim, J.B. and Zang, Y.S. (2010). Audit office size, audit quality and audit pricing. *Auditing Journal of Practice and Theory*. Available at: <http://ssrn.com/abstract=1011096>.
17. Craswel, A., Stokes, D. J. and Laughton, J. (2002). Auditor independence and fee independence, *Journal of Accounting and Economics*, 33, 253 – 275.
18. Dang, L. (2004). *Assessing actual audit quality*, PhD thesis, Drexel University Philadelphia, USA.
19. Davidson, A. R, and New, Dean. (1993). A note on the association between audit firm size and audit quality". *Contemporary Accounting Research*, 9(2), Spring, 479-488.
20. DeAngelo, L. E. (1981). Auditor size and audit quality, *Journal of Accounting and Economics*, 3 (3), 183 – 199.
21. DeFond, M. L., Raghunandan, K. and Subramanyam, K.R. (2002). Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting Research*, 40, 1247- 1274.
22. Demaki, G. O. (2011). Proliferation of codes of corporate governance in Nigeria and economic development. *Business and Management Review*. 1(16): 1-7.
23. Donaldson T, Preston I (1995). Stakeholder theory of the corporation: Concepts, evidence, implications. *Acad. Manage. Rev.* 20:65-91.
24. Dopuch, N., and Simunic, D. (1980).The nature of competition in the auditing profession: a descriptive and normative view, *regulation and the accounting profession*, 34(2), 283-289.
25. Dunakhir, S. (2016). Factors associated with audit quality: evidence from an emerging market, *Second Asia Pacific Conference on Advanced Research*. 189-198.
26. Enofe, A.O., Mgbame, C., Aderin, A., and Ehi-Oshio., O. U (2013). Determinants of audit quality in the nigerian business environment, *Research Journal of Finance and Accounting*, 4(4), 36-43
27. Ezechukwu, B.O., and Amahalu, N.N. (2016). Effect of international financial reporting standards adoption on cost of equity capital of banks quoted on Nigeria Stock Exchange. *Research Journal of Financial Sustainability Reporting*, 1(2).
28. Firth, M (1980). Perceptions of auditor independence and official ethical guidelines', *The Accounting Review*, 51-66.
29. Francis, R. Jere, Ewdward, L. Maydew and H. Charles Sparks. (1999). The role of big 6 auditors in credible reporting accruals. *Auditing; a Journal of Practice and Theory*. 8(2), Fall: 17-34.

30. Francis, R. Jere. (2011). A framework for understanding and researching audit quality. *Auditing: A Journal of Practice and Theory*. 30(2), 125-152.
31. Frankel, R., Johnson, M. and Nelson, K. (2002). The relation between auditors' fees for non - audit services and earnings quality, *The Accounting Review* 77 (Supplement), 71-105.
32. Freeman RE (1984). *Strategic management: a stakeholder approach*. Boston, Pitman.
33. Geiger, M. A. and Raghunandan, K. (2002). Auditor tenure and audit reporting failures, *Auditing: A Journal of Practice and Theory*, 21(1), 67-78.
34. Gul, F.A. (1989). Banker's perceptions of factors affecting auditor independence, *Accounting, Auditing and Accountability Journal*, 2(3), 40-51.
35. Hussainey, K. (2009). The impact of audit quality on earning predictability. *Managerial Auditing Journal*, 24(4), 340-351.
36. Idornigie P.O. (2010): *Enhancing corporate value through the harmonization of corporate codes*. A paper presented at the 34th Annual conference of ICSAN. Sheraton Hotels and Towers. September 22nd and 23rd Lagos.
37. Jones TM (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Acad. Manage. Rev.* 20, 404-437.
38. Jones TM, Wicks AC (1999). Convergent stakeholder theory. *Acad. Manage. Rev.* 24(2):206-221.
39. Klein, B., and Leffler, K.B. (1981). The role of market forces in assuring contractual performance, *The Journal of Political Economy*, 89(4), 615-641.
40. Knapp, M. C. (1991). Factors that audit committee members use as surrogate for audit quality, *Auditing: A Journal of Practice and Theory*, 10 (1), 35 – 52.
41. Knechel, R. W., Krishnan, V. G., Pevzner, M., Shefchik, B. Lori, danVelury, K. Uma. (2013). Audit Quality: Insights from the Academic Literature, *Auditing: A Journal of Practice and Theory*.32, Supplement: 385-421.
42. Knechel, W. R. (2009). *Audit lessons from the economic crisis: rethinking quality*. inaugural lecture delivered at Maastricht University on Friday, September 11.
43. Kordelas, G. (2012). Earning management and audit quality of public firm: Evidence from US". *Research School Economics University Rotterdam*.
44. Krishnan, G.V. (2003). Does big 6 auditor industry expertise constrain earnings management?" *Accounting Horizons*, 17(supplement) 1-16.
45. Lennox S. Clive. (1999). "Audit Quality and Auditor Size: An Evaluation of
46. Levitt, A. (1998). *The numbers game*: speech delivered at the New York University center for law and business, New York. <http://www.rutgers.edu/accounting>; <http://www.sec.gov/news>.
47. Li, J. and Lin, J. (2005). The relationship between earnings management and audit quality, *Journal of Accounting and Finance Research*, 12 (1), 1- 11.
48. Li, Y., Stokes, D.J., Taylor, S.L. and Wong, L. (2009). Audit quality, accounting attributes and the cost of equity capital, *Accounting and Finance Association of Australia and New Zealand (AFAANZ) Conference*.
49. Lianne, D. (2011). Inquiry into finance company failures. *Report of the Commerce Committee presented to the House of Representatives*. Accessed on 10th August, 2012 from www.parliament.nz_inquiryintofinancecompanyfailures1.pdf.
50. Limperg, T. (1932). *Theory of inspired confidence*. University of Amsterdam.
51. Lys, T. and Watts, R. L. (1994). Lawsuits against auditors, *Journal of Accounting Research*, 32 (Supplement), 65 – 93.
52. Mautz, R. K. and Sharaf, H. A. (1961). The philosophy of auditing; Florida, *American Accounting Association, Monograph Series* (6).
53. Nagy, L. A. (2005). Mandatory audit firm turnover, financial reporting quality, and client bargaining power: The Case of Arthur Andersen. *Accounting Horizon*. 19(2), 51-68.
54. Norwani, N. M., Mohamad, Z. Z. and Chek, I. B. (2011). Corporate governance failure and its impact on financial reporting with selected companies. *International Journal of Business and Social Sciences*, 2(21): 205-213, Special Issue, November.
55. Okolie, A. O. (2014). Accrual – Based earnings management, corporate policies and managerial decisions of quoted companies in Nigeria, *Research Journal of Finance and Accounting*, 5 (2), 1 – 14.

56. Okolie, A.O. (2014). Auditor tenure, auditor independence and accrual – based earnings management of quoted companies In Nigeria, *European Journal of Accounting Auditing and Finance Research*, 2 (2), 63 – 90.
57. Okolie.A.O. and Izedonmi, F.I.O. (2014). The impact of audit quality on the share prices of quoted companies in Nigeria, *Research Journal of Finance and Accounting*, 5(8), 150-166.
58. Palmrose Z (1988). An analysis of auditor litigation and audit service quality. *Account. Rev.* 63(1): 55-73.
59. Salehi M, Mansoury A (2009). Firm size, audit regulation and fraud detection: Empirical evidence from Iran. *Management* 4(1):5-19.
60. Securities and Exchange Commission (2000). *Revision of the commission's auditor independence requirements* (Releases No. 33-79919). Washington DC, USA: Author.
61. Shafie, Rohami, Wan Nordin, Wan Hussin, Mohd, 'Atef, Md. Yusof and Md. Hairi, Md. Hussin (2009). Audit Firm Tenur and Auditor Reporting Quality: Evidence in Malaysia. *International Business Research*, 2(2), 99-109.
62. Shivaram, R. Suraj, S. and Xin, Z. (2015), Measuring Audit Quality, *Journal of Accounting and Economics* 24(1): 3-37
63. Shockley, R.A. (1982). Perceptions of auditors' independence: an empirical analysis, *The Accounting Review*. 56(4), 785-800.
64. Skinner, D.J. and Srinivasan, S. (2012). Audit quality and auditor reputation: Evidence from Japan", *The Accounting Review*, 87(5), 1737-1765.
65. Suyono, E., (2012) .Determinant factors affecting the audit quality: An Indonesian perspective. *Global Review of Accounting and Finance*, 3(2). September 2012, 42 – 57.
66. Sweeney, A.P. (1994). Debt-Covenant violations and managers' accounting responses, *Journal of Accounting and Economics*, 17, 281 – 308.
67. Teoh, S.H., and T.J. Wong. (1993). Perceived auditor quality and the earnings response coefficient. *The Accounting Review*, 68(2), 346-366.
68. Titman, S., and B. Trueman. (1986). Information quality and the valuation of new issue. *Journal of Accounting and Economic*, 8, June, 159-172.
69. United Kingdom House of Common Treasury Committee (2008).
70. Venkataraman, R, Joseph P. W and Michael W. (2008). Litigation risk, audit quality and audit fee from initial public offerings". *The Accounting Review*. 83(5), 1315-1345.
71. Wallace, W.A. (1987). The economic role of the auditor in free and regulated markets: a review, *Research in Accounting Regulation*, 1, 7 – 34.
72. Wati, C., and Bambang, S. (2003). Factors affecting independent in appearance of auditors. *TEMA. IV*(2), 85-101.
73. Watkins, A.L. W. Hillison, and S.E. Morecroft. (2004). Audit quality: a synthesis of theory and empirical evidence. *Journal of Accounting Literature*. 23, 153-193.
74. Watts, R and J. Zimmerman (1978). The demand for and supply of accounting theories: the market for excuses. *The Accounting Review* 54:2, 273–306.
75. Watts, R and J. Zimmerman (1986). The demand of and supply for accounting theories. *The Accounting Review* 54:2, 273–305.
76. Watts, R. and Zimmermann, J.L. (1986). *Positive accounting theory*. Prentice Hall, Inc. Englewood Cliff.
77. Watts, R., and Zimmerman, J. (1981). *The markets for independence and independent auditors*, unpublished manuscript (University of Rochester, Rochester, NY).
78. Wibowo, A., and Rossieta H. (2009). Determinant factors of audit quality: A study earnings surprise benchmark approach. *Working paper in XII National Accounting Conference of Indonesia*, Palembang, Indonesia.
79. Widiastuty, E and Febrianto, R. (2010). Audit quality measurement: An essay. *Accounting and Business Journal*, V(2), 1-20.