Research article

AUDIT FIRM ROTATION AND THE QUALITY OF AUDIT WORK: AN EMPIRICAL STUDY OF NIGERIA.

LAWRENCE IMEOKPARIA

DEPARTMENT OF ACCOUNTING AND FINANCE
COLLEGE OF MANAGEMENT AND SOCIAL SCIENCES
CALEB UNIVERSITY
IMOTA-IKORDU, LAGOS STATE
NIGERIA
E-mail: imeolaw2@gmail.com

This work is licensed under a Creative Commons Attribution 4.0 International License.

ABSTRACT

Due to a lot of financial crisis both in Nigeria (Cadbury case) and internationally (Enron case, Pamalet case and so on), the independence of auditors affecting audit quality is questioned and the need to strengthen the confidence of users of financial information in the audited financial statement arises. To achieve this there has being several debates as to whether the mandatory rotation of audit firms is the answer. This research sought to determine if the rotation of audit firms would increase auditor’s independence and audit quality; whether long audit tenure has any effect on auditor’s independence and audit quality as well as if the start up cost and risk of audit failure would increase provided that there is rotation of audit firms. In this research three (3) hypotheses were formulated and tested. The primary data was obtained through the administration of questionnaires to a simple randomly selected set of 120 auditors from the Big 4 audit firms (Price waterhouse and coopers, KPMG, Deloitte, and Ernst & Young). In testing the hypotheses the regression analysis was used. The findings from this research indicate that mandatory rotation of audit firms has a positive relationship with auditor’s independence and audit quality so likewise does long audit tenure. It also shows that audit firm rotation significantly affects audit start up cost and the risk of audit failure. This study highly recommends that accounting and auditing bodies in Nigeria should incorporate mandatory
rotation of audit firms as this would enhance the independence of auditors. It further recommends that the rotation period be determined with great care given the delicate trade-off between client-specific knowledge on the one hand and independence-related issues on the other hand.

**KEY WORDS:** Audit, audit firm, mandatory rotation, trade-off, quality

---

### 1.1 INTRODUCTION

An audit can be traced to the ancient times when the owners of farm lands needed the assistance of a man of integrity and who was independent to help with overseeing the account of stewardship given by the tenants (Olowookore, and Adebiyi 20113).

The recent corporate failures and accounting irregularities has raised questions on auditor tenure, independence and audit quality (Bricker, 2002). It has been perceived that auditor’s closeness or familiarity with the client as a result of long audit tenure has been the cause for lack of auditor’s independence and objectivity which makes financial statements less reliable as the investors view lengthy tenure as having an adverse effect on auditor’s independence and audit quality (Ghosh and Moon 2005, Asein, 2007).

Audit failure is a global phenomenon and cuts across jurisdictions. One of which is the recent collapse of such global companies as Enron and World Com. In the early 1980’s and 1990’s such global giants as John Mathews Bank (JMB), Bank of Credit and Commerce International (BCCI), Barring Brothers, Nomura Securities, Brex and Long Term Capital Management (LTCM) all failed as a result of fraud related factors (Muraina, Okpara and Aunanaya, 2010). Perhaps, the greatest audit failure in Nigeria in recent times is that associated with the Cadbury (Nig.) Plc accounting scandal which came to the fore in 2006. Okaro and Okafor,( 2013) reveals that Nigerian investors have lost several billions of dollars as a result of companies that falsified and deliberately overstated their accounts and consequently failed or got into serious trouble. For example is the height of the Cadbury (Nig) Plc. Accounting scandal, its share price pull meted from an all time high of #65.52 in December 2005 to #8.65 as at October 2009.

### 1.2 Objectives of the Study

1. To determine the extent to which mandatory audit firm rotation enhances auditor’s independence and audit quality.
2. To determine whether long audit tenure has any effect on auditor’s independence and audit quality

### 1.3 Research Questions

1. To what extent does mandatory audit firm rotation increase auditors’ independence and audit quality?
2. To what extent does long audit tenure have effect on auditors’ independence and audit quality?

### 1.4 Statement of Hypotheses
Hypothesis I:

Ho: The rotation of audit firms’ mandatorily does not significantly affect the independence of auditors’ and the quality of audit.

Hypothesis II

Ho: Long audit tenure has no effect on auditor’s independence and audit quality

2 LITERATURE REVIEW AND EMPIRICAL FINDINGS

In an experimental study carried out in the US, interactions between managers who invest in assets open to risks and an auditor who reports on these assets were observed by Dopuch, King and Schwartz (2001) over a period of time. They recommended external rotation of audit to prevent biasing by auditors as a result of familiarity thereby not revealing errors in financial reports. They also opined that the chances of auditors becoming bias reduce with rotation.

Between 1988 and 2000, 42302 US corporations were surveyed using univariate and multivariate analysis by Myers, Myers and Omer (2003). They reported that auditors who have been on an assignment for a long period (say more than 5 years) do not approve maximum accounting policy. They examined the relationship between audit tenure and earnings quality concluding that the longer the tenure of an auditor concluding that earnings quality improves with extended auditor tenure under voluntary rotation system.

Based on the 1990 – 2002 business years, using logistic regression model and a sample of 267 US corporations Carcello and Nagy (2004) showed balance manipulations mostly in the first three years of the assignment, since the management assumes lower quality of audit provided by new auditors. A long-term assignment (at least nine years), however, does not imply a significant increase of balance manipulations. It showed a significant positive relationship between short term auditor tenure and the number of fraudulent financial reports but they were not able to find a link between fraud and long auditor tenure.

Mansi, Maxwell and Miller (2004), according to an 8,529 US surveys carried out between 1974 and 1998, question the expediency of audit firm rotation and stated negative capital market retort in the evaluation of market-noted stocks of risk intensive companies. According to the “new auditor learning costs” view, restrictions on auditor tenure can limit the function of the “learning effect,” thus weakening the auditor’s professional competence. Therefore, it does not give support to regulators implementing the mandatory auditor rotation requirement. Ghosh and Moon (2005) used basic regression framework for the period 1990 to 2000 and related to public companies included in computation show that investors, rating agencies and analysts assume positive interdependence between the duration of assignment and the quality of accounting, represented by the interest rate investors require, rating results, as well as the analysts’ performance projection. The study was concluded stating that the influence of
reported earnings on stock ranking becomes larger with extended tenure although the association between debt ratings and reported earnings does not vary with tenure.

Gomez-Aguilar, Barbadillo, Carrera, and Humphrey (2006) examined mandatory audit firm rotation in Spain: a policy that was never applied. In recent international debate on auditing regulation, Spain has assumed a real fame as a claimed practical example of where a policy of mandatory audit firm rotation did not work and was duly abolished. Gates, Lowe and Reckers (2007) sampling the opinion of seventy nine Masters in Business Administration students in USA, recorded that rotation of audit firm on an incremental level influence the confidence of individual’s in a financial statement that has being audited although the effect of audit partner rotation differs, Gates et al (2007) show that investors’ confidence in the financial accounting quality in a regulatory environment with increased corporate governance methods cannot be influenced by external auditor rotation.

Boone, Khurana and Raman (2008) carried out a study during the fiscal years of 1974 to 2001 using a survey of 12493 on the US capital market, they disclosed the evidences that there is a form of interdependence between when an external auditor is rotated and allocated capital contribution risk margin. At the beginning of the audit assignment it was stated that there will be a decrease in cost of capital which will increase in the course of the audit period. The study affirmed that most of the research works related to this topic do not provide information that could serve as evidence that the quality of an audit is weakened as a result of the rotation rule implementation.

Jackson, Moldrich and Roebuck (2008) carried out a research on the capital market of Australia examining 1,750 companies between the years 1995 and 2003. The experience of an auditor is capable of making clients want to keep re-appointing an audit firm for engagement leading to an increase in the audit firms period of audit as well as reducing the possibility of having a going concern opinion. In their further research into the Spanish audit market, Jackson et al 2008 with the use of two proxies (namely; possibility of the auditor issuing a going concern opinion and discretionary accrual level) concluded that the quality of audit is on the increase as much as the audit period is for a long time and that the introduction of audit firm mandatory rotation will be of no good to the quality of audit as the rotation rule can only improve what is perceived as the quality of audit and not actual audit quality.

Cameran al et (2005) researched in an environment where the rule of mandatory rotation has being in operation 20 years and more where the possibility of conspiracy between the managers and the auditor is increased by the legal framework. Davis, Soo and Trompeter (2009) by their study stated that the managers of a company maximize their opportunity in decision making when an auditor engages in either short or long period of audit so that they can fulfill of surpass the kind of outcome predicted by them. There is an increase in the demand for shares when managers are able to exceed their predicted outcome which is positively considered by the capital market. They examined 12,892 corporations in the US between the years of 1991 to1998. They are of the opinion by this study that the quality of audit is improved at the completion of a long period of audit assignment when auditors are thereafter mandatorily rotated.
Kwon, Lim and Simnett (2010) in his study Mandatory Audit Firm Rotation and Audit Quality: Evidence from the Korean Audit Market, used a unique database consisting of 12,463 firm-year observations in Korea between 2000 and 2007, this study examines the effect of mandatory audit firm rotation on audit hours, audit fees, and audit quality. Since the Korean government mandated audit firm rotation in 2006, (1) audit hours increased, (2) audit fees increased, and (3) audit quality (measured as abnormal discretionary accruals) remained unchanged or decreased slightly. These results, which are robust to controlling for potential endogeneity between audit hours and earnings management and to measuring audit quality alternatively, suggest that mandatory audit firm rotation increases the cost for audit firms and clients while having no discern-able positive effect on audit quality.

Kramer, Georgakopoulos, Sotiropoulos and Vasileiou (2011) considered audit firm rotation, audit firm tenure and earnings conservatism. This study aimed to contribute to the debate around the possibility of mandating audit firm rotation. Specifically, it examines conservatism as an attribute of earnings quality, which has not attracted particular attention in the auditor rotation research. Applying regression analyses on a sample, which consists of U.S. firms for the period 1980-2006, their findings, indicate that conservatism in reported earnings increases after the rotation of the audit firm. However, their results lack significance.

Brooks, Cheng and Reichelt (2012) revealed that Public Company Accounting Oversight Board (PCAOB) recently solicited comments on a 10-year mandatory audit firm rotation for the largest 100 S&P firms. They propose that audit quality is likely to increase with audit firm tenure due to a dominant Learning Effect in earlier years and decrease with audit firm tenure due to a dominant Bonding Effect in later years. Adopting a quadratic model to empirically estimate the firm tenure year when audit quality is likely to decline, they find that the average point when audit quality optimizes is 12 years for a large sample of U.S. firms.

Onwuchekwa, Erah and Izedonmi (2012) examined mandatory audit rotation and audit quality: survey of southern Nigeria. Mandatory rotation of external auditors requires audit firms to be rotated after a specified number of years despite the quality, independence of the audit firm, the willingness of the shareholders and the management to keep the audit firm. This study was designed to determine the relationship between mandatory audit rotation and audit quality. The data used were collected through the distribution of questionnaires to investors, lecturers, consultants, accountants and auditors in southern Nigeria.

Dibia and Onwuchekwa (2013) studied and reported on the examination of shareholders perception on mandatory audit rotation in Nigeria. They investigated the perception of shareholders on mandatory audit rotation in Nigeria. This became necessary following the directive of the Central Bank of Nigeria in 2009 that all banks should rotate her external auditors after ten years of engagement. Questionnaires were distributed to investors. The study made use of tables, percentages and regression analysis. The study observed a negative relationship between Mandatory Audit Rotation (MAT) and shareholders’ confidence. This implies that the rotation of external auditors does not boost the confidence of shareholders in Nigeria. The study recommended that mandatory rotation of external
Auditors in Nigeria be revisited. The benefit can only be a perception and not a reality while the cost both implicit and explicit does not favor the very shareholders whom the policy seeks to protect.

Olowookere and Adebiyi (2013) this study investigated the effect audit firm mandatory rotation rule have on Nigerian Deposit Money Banks quality of audit. In order to estimate the data obtained from primary and secondary sources the binary legit model technique of estimation was used in determining the relationship existing between audit firm mandatory rotation and quality of audit. The results of their findings indicated that the quality of audit is not affected by audit firm mandatory rotation rule. Furthermore, as a result of the directives of the Central Bank of Nigeria with respect to rotating audit firms in Nigeria mandatorily after ten years is being complied with by the banking industry. They recommended the voluntary rotation of external auditors.

3. METHODOLOGY

Structured questionnaire was used to elicit responses from practicing auditors in the Big 4 audit firms (KPMG, Deloitte, Pricewaterhousecoopers, Ernest & Young) in Nigeria.

The questionnaire was designed to investigate how mandatory audit firms’ rotation can be used to increase their autonomy and improve audit quality. For this study, questions were structured using a five point Likert scale ranging from strongly agree, agree undecided, disagree and strongly disagree. A total of 200 copies of questionnaire were administrated among the auditors from the 4 big auditor firms (KPMG, Deloitte, Pricewaterhousecoopers, Ernest & Young) in Nigeria. A total 125 copies of the questionnaire were retuned and out 125 questionnaire returned only 99 copies were usable. The data was analysis using the Ordinary Least Squares (OLS) regression technique. This method was adopted because of its property of best linear unbiased estimator.

4. Data Analysis

Hypothesis I

Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.654</td>
<td>.428</td>
<td>.422</td>
<td>.633</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Audit firm rotation is the change of audit firms after a period of years to provide a fresh perspective to audit work.
ANOVA\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>29.370</td>
<td>1</td>
<td>29.370</td>
<td>73.386</td>
<td>.000 (^b)</td>
</tr>
<tr>
<td>Residual</td>
<td>39.220</td>
<td>98</td>
<td>.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>68.590</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Audit firm rotation reduces familiarity threat.

\(^b\) Predictors: (Constant), Audit firm rotation is the change of audit firms after a period of years to provide a fresh perspective to audit work.

Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.299</td>
<td>.185</td>
<td>1.612</td>
<td>.110</td>
</tr>
<tr>
<td>Audit firm rotation is the change of audit firms after a period of years to provide a fresh perspective to audit work.</td>
<td>.975</td>
<td>.114</td>
<td>.654</td>
<td>8.567</td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Audit firm rotation reduces familiarity threat.

**Decision Rule:**

The simple linear regression is applied to hypothesis and the decision to be taken depends on the P values obtained. For the hypothesis, the decision rule is to reject the null hypothesis and accept the alternate hypothesis where the P value is less than 0.05 or to accept the null hypothesis (\(H_0\)) and reject the alternate hypothesis (\(H_1\)) where P value is greater than 0.05.

**Interpretation:**

Since the coefficient of mandatory audit rotation is positive, this passes the sign test and shows that there is a positive relationship between Mandatory audit rotation and auditors independence.
From the above table, $R = 0.654$, which represents the correlation coefficients. $R$ is a measurement of strength in association between two variables (dependent and independent), it is also the degree of relationship existing between two or more variables, this shows a 65.4% level of relationship between the two variables.

The $R^2$-squared value of 0.428 shows that there is a 42.8% level in the coefficient of determination, i.e. mandatory audit rotation could determine the level of auditors independence to the rate of 42.8% and the remaining 67.3% will be accounted for by the Error term in equation. This shows that there is a degree of determination between the variables.

**Hypothesis 2**

**Model summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.714a</td>
<td>.509</td>
<td>.504</td>
<td>1.020</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Lengthy tenure has an adverse effect on auditor’s independence and audit quality.

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>105.962</td>
<td>1</td>
<td>105.962</td>
<td>101.770</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>102.038</td>
<td>98</td>
<td>1.041</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>208.000</td>
<td>99</td>
<td>1.041</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Audit partner’s rotation has increased auditor’s independence and audit quality.

b. Predictors: (Constant), Lengthy tenure has an adverse effect on auditor’s independence and audit quality.

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>.695</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.169</td>
<td>.244</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lengthy tenure has an adverse effect on auditor’s independence and audit quality.

a. Dependent Variable: Audit partner’s rotation has increased auditor’s independence and audit quality.

### Decision Rule:

The simple linear regression is applied to hypothesis and the decision to be taken depends on the P values obtained. For the hypothesis, the decision rule is to reject the null hypothesis and accept the alternate hypothesis where the P value is less than 0.05 or to accept the null hypothesis ($H_0$) and reject the alternate hypothesis ($H_1$) where P value is greater than 0.05.

### Interpretation:

Since the coefficient of long audit tenure is positive, this passes the sign test and shows that there is a positive relationship between Long audit tenure and auditors independence.

From the above table, $R=0.714$ which represents the correlation coefficients. $R$ is a measurement of strength in association between two variables (dependent and independent), it is also the degree of relationship existing between two or more variables, this shows a 71.4% level of relationship between the two variables.

The R-squared value of 0.509 shows that there is a 50.9% level in the coefficient of determination, i.e. Long audit tenure could determine the level of auditor’s independence to the rate of 50.9% and the remaining 49.1% will be accounted for by the Error term in equation. This shows that there is a degree of determination between the variables.

### Decision:

Since for hypothesis two, the significance is 0.000 which is far less than 0.05, the null hypothesis ($H_0$) is rejected and the alternate hypothesis ($H_1$) is accepted. Therefore, Long audit tenure has effect on auditor’s independence and audit quality.

### 5. Conclusion.

The results research show that auditor’s closeness or familiarity with the client as a result of long audit tenure has been the cause for lack of auditor’s independence and objectivity which makes financial statements less reliable as
the investors view lengthy tenure as having an adverse effect on auditor’s independence and audit quality. This study has investigated and confirmed that auditors’ autonomy (independence) is a prerequisite to enhancing audit quality and for this to be achieved there should be mandatory rotation of audit firms. From this study using the Big 4 audit firms (PWC, KPMG, Deloitte, and Ernst & Young) as the sample population it is revealed that the cost of rotation could be reduced by the handing over of working papers, and that long audit tenure affects auditor’s independence bringing about the issue of familiarity. Mandatory rotation of audit firms is to be considered as important in enhancing auditor’s independence as there is a significant relationship between them and their effect on audit quality. This conclusion is consistent with by Vanstraelen (2000); 

REFERENCE


[23] KPMG (2011). PCAOB requests feedback on auditor independence and audit firm rotation Defining issues No. 11-46


