The Effect of Audit Rotation on the Audit Quality: Empirical Study on Iraq

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Abstract: This study investigate the relationship between voluntary audit rotation by the two both level (partner/firm) on the audit quality and analyzing the relationship between audit tenure and the audit quality on the Iraq Stock Exchange using a sample of 138 firm year observations for the period 2015-2017. We found a significant positive relationship between voluntary firm rotation and the absolute value of discretionary accruals which means a significant negative relationship between voluntary firm rotation and audit quality. In addition we found a significant negative relationship between audit tenure and the absolute value of discretionary accruals which means a significant positive relationship between audit tenure and audit quality.In addition, we found no relationship between voluntary partner rotation and audit quality which means voluntary partner rotation doesn't have an effect on the audit quality.

Key words: Audit rotation, mandatory and voluntary audit rotation, partner/firm audit rotation, audit quality, audit tenure, discretionary accruals

INTRODUCTION

Audit quality is the concept which refers to the auditor's ability to discover a breach and report about it in the audit report related to the client's accounting system (DeAngelo, 1981). So, the two most important determinantsof audit quality are the competence and independence of the auditor (Firth *et al.*, 2012). Therefore, it's important toidentify the threats of auditor's competence and independence in order to maintain the audit quality.

For the long time, it was the prevailing belief that longer audit tenure lead to increasing audit quality because of the accumulated experience about the client's business, this means that the auditor's accumulated experience enables him from performing the audit task in a better way which increase audit quality (Febrianto *et al.*, 2011). Based on this belief Johnson *et al.* (2002) use a triple measure for the audit tenure divide the audit tenure into three levels represented in: short term (2-3 years), medium term (4-8 years) and the long term (9 and more years) and examine the effect of audit tenure on the audit quality using this measure but in the end they can't validate the previous belief because they found the audit

quality of medium term better than audit quality of short term, in the same time they found the audit quality of long term lower than audit quality of short term.

In this regard, the long tenure relationship between the client and the auditor is one of the threatened to audit quality because it may cause familiarity between them which means lack of professional care from the auditor (Jackson *et al.*, 2008). For addressing with this concern there are two mechanisms. The first one, is the regulatory intervention by Section 203 of the Sarbanes-Oxley Act of 2002 which insure the importance of audit partner rotation by preventing the audit partner from performing auditing to the same clients for more than 5 consecutive years (DeFond and Francis, 2000). The second one, related to the auditing profession which stem from the desire to maintain a good reputation for them through the market and economic incentives (DeAngelo, 1981; Reynolds and Francis, 2001; DeFond and Francis, 2005).

Sarbanes-Oxley Act of 2002 determines the policy of audit rotation without determining the form of this policy, which prevents the implementation mandatory audit rotation in many countries around the world and the existence of four different forms of audit rotation represented in mandatory audit rotation, voluntary audit

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rotation, audit partner rotation and audit firm rotation (Firth *et al.*, 2012). These different forms of audit rotation have different effects on the audit quality by its two determinants (Dopuch *et al.*, 2001; Johnson *et al.*, 2002; Myers *et al.*, 2003; Carey and Simnett, 2006). Audit firm rotation may decrease the level of familiarity relationship between the client and the auditor which lead to increasing the independence. In the same time it may harm the auditor's competence because of the loss of client-specific knowledge. On the other side, audit partner rotation doesn't cause all these effects (Sugiri and Febrianto, 2011; Elder *et al.*, 2015).

A mandatory audit rotation (Partner/firm rotation) has the same impact of audit firm rotation on the audit quality because it increases the degree of independence and harms the competence these effects are the final result of lower discretion gap resulting from mandatory rotation. On the contrary the voluntary audit rotation doesn't have these effects (Johnson and Lys, 1990; Shu, 2000).

The effects of all forms of audit rotation practices on the audit quality depend on the level of audit firm's market and economic incentives for maintaining the good reputation where if it exceeds the economic interests related to the auditors from accepting specific clients. So, it is very difficult to ensure that one of these forms is the best one for enhancing audit quality (Kwon *et al.*, 2014; Choi *et al.*, 2017).

Finally, we can claim that the effects of audit rotation forms on the audit quality are unclear and depend to great extent on the determinants of the accounting environment. So, we conclude analyzing the relationship between audit rotation and audit quality on Iraq represent an empirical question need to be answered.

Literature review: Numerous studies cared for analyzing the relationship between audit rotation and audit quality whether if this rotation was mandatory or voluntary and whether if this rotation was at the audit firm level or at the audit partner level and they agreed a positive relationship between audit tenure and audit quality (Geiger and Raghunandan, 2002; Johnson *et al.*, 2002; Myers *et al.*, 2003; Carcello and Nagy, 2004; Chi and Huang, 2005; Carey and Simnett, 2006; Gul *et al.*, 2007, 2009; Knechel and Vanstraelen, 2007; Stanley and DeZoort, 2007; Chen *et al.*, 2008; Jenkins and Velury, 2008; Manry *et al.*, 2008; Davis *et al.*, 2009).

On the other hand, we find another bulk of literature agreed a negative relationship between audit tenure and audit quality under certain conditions such as related to the different proxies of audit quality or those related to the different laws in countries (Carey and Simnett, 2006;

Davis *et al.*, 2009). This result led to increasing attention for analyzing this relationship using different proxies and new variables in recent years.

In this regard, Kwon *et al.* (2014) investigated the relationship between mandatory audit rotation and audit quality and audit fees and they don't significant change on audit quality with long tenure audit and voluntary audit rotation. In addition they found audit fees larger by implementing mandatory audit rotation.

Nicolaescu (2014) examined the effect of audit firm rotation on the earnings quality using accruals which is used sometimes as a proxy for audit quality, this study revealed a negative relationship between audit firm rotation and the audit quality, besides a negative relationship between voluntary audit relationship and the audit quality.

Elder *et al.* (2015) aim to analyze the relationship between audit firm rotation policies and audit quality in a government audit market and they found an indirect positive relationship between audit firm rotation and audit quality, i.e., audit rotation affect on audit quality by encouraging the use of auditors that specialize in governmental audits, rather than auditor independence, which is frequently argued to support mandatory rotation.

Choi *et al.* (2017) tried to investigate the effect of audit firm rotation and big 4 audit on the audit quality in South Korea and they found that the audit quality related to the mandatory rotation is higher than voluntary rotation and the audit quality related to the mandatory firm rotation is higher than mandatory partner rotation, besides they found that switching to Big 4 audits has a significant positive effect on the audit quality.

Febrianto *et al.* (2017) analyze the relationship between auditor rotation and audit quality, the findings of this study insure that the firms that rotate their auditors mandatorily have higher audit quality than that of companies voluntarily rotating auditors. In addition, they agree with Choi *et al.* (2017) that switching to Big 4 audits has a significant positive effect on the audit quality.

Harber and Hart (2018) aim to study the different efforts related to analyzing the effects of mandatory audit firm rotation from the perspective of academics in South Africa and they found that audit firm rotation has a great positive effect on the auditor independence and hence, the audit quality.

Finally, we conclude that recent studies still have controversial results as well as another prior literature. So, we can insure that the direction of relationship between audit rotation and audit quality is not clear yet. Thus, research gap of our research embodied in analyzing this relationship on the Iraqi information environment, especially, the Iraq Stock Exchange recommend with

adoption mandatory audit rotation but it still to now voluntary on the two both level (partner/firm). Therefore, this study will contributes to the international accounting literature in two ways to our best knowledge. First, it is the first study analyzes this relationship on Iraq, especially, it will include the both levels of audit rotation (partner/firm). Second, it will try to cover the gap of mixed results among studies, especially in emerging markets.

Theory and hypothesis development: Presumably, the auditors gain a great level of experience about the business client by longer audit periods and hence, increasing the audit quality (Chen *et al.*, 2008; Jenkins and Velury, 2008; Manry *et al.*, 2008; Davis *et al.*, 2009; Gul *et al.*, 2009). But on the other side, these long audit periods may cause a familiarity relationship with the client which led to lower level of audit quality (Carey and Simnett, 2006; Davis *et al.*, 2009). So, we can conclude that auditor rotation is double-edged sword on the both levels (partner/firm).

Therefore, we must conduct analysis by two stages, first comparing between audit quality for companies which rotate its auditor voluntary and audit quality for companies which doesn't on the both levels (partner/firm). Second, we analyze the relationship between the length of audit periods and audit quality. These two stages lead to our hypothesis as follow:

- H_1: there is no relationship between voluntary audit rotation and audit quality.

This first main hypothesis can be divided into two hypothesis as follow:

- H_{1a}: there is no relationship between audit partner rotation and audit quality
- H_{1b}: there is no relationship between audit firm rotation and audit quality

And extending for conducting the second stage of our analysis we must express about the second main hypothesis as follow:

- H_2: longer term audit tenure periods lead to higher level of audit quality

MATERIALS AND METHODS

Research design: For testing hypothesis of our research, we must show our tools for measuring variables and then describe our regression model for testing hypotheses as follow:

The dependent variable

Audit quality: There is no accurate agreeable measure of audit quality, where the definition of audit quality unable to define the relevant measure because it focuses on the audit's outputs that we can't observe except in the audit report and the majority of these reports are standard clean opinion (Davidson and Neu, 1993). Based on this standardization of audit report numerous studies depend on using absolute value of discretionary accruals as a proxy for audit quality (e.g., Johnson *et al.*, 2002; Myers *et al.* 2003; Carcello and Nagy 2004; Nagy 2005). Consequently, we use Jones model for accruals as a measure for financial reporting quality (Jones, 1991):

$$TACC/LagTA = \alpha_0 + \alpha_1(1/LagTA)i,t + \alpha_2(\Delta REV - \Delta REC)/$$
$$LagTA_{i,t} + \alpha_3(LagROA)_{i,t} + \alpha_4(PPE/LagTA)_{i,t} + \varepsilon$$

$$(1)$$

Where:

TACC	=	Total Accruals which equal the difference between net income from the cash flow statement and free cash flow from operations
ΔREV	=	Change on sales revenue
ΔREC	=	Change on accounts receivables
LagROA	=	Return on Assets last year which equals net income for t-1 from the cash flow statement divided by total assets for t-1
PPE	=	Total assets before depreciation
LagTA	=	Total Assets for t-1
i, t	=	Stand for time by year and company, respectively

We estimate this model cross-sectionally with at least eight observations in eachindustry for every year and we use the residuals of this model as a proxy for Audit Quality (AQ).

The independent variables; (voluntary audit rotation and audit tenure): The first stage of our analysis for testing our first hypothesis depend on comparing between the audit quality for the firms voluntary rotate its auditor and the audit quality for the firms doesn't, so, we will follow Firth *et al.* (2012) by using indicators for measuring voluntary audit rotation on its both levels (partner/firm).

The second stage of our analysis for testing our second hypothesis depend on using audit tenure as a proxy, which means depending on number of audit period for the auditor following (Carey and Simnett 2006; Boone *et al.*, 2008).

Empirical models for testing hypothesis: The first hypothesis of this study predicts that no relationship between voluntary audit rotationson the both levels (partner/firm) and audit quality and the second hypothesis of this study predicts there is no relationship between audit tenure and audit quality. So, for testing H_1, H_{1a}, H_{1b} and H_2 we can use this equation model:

$$AQ = \beta_0 + \beta_1 VPR + \beta_2 VFR + \beta_3 \text{ Tenure} + \beta_4 Size + \beta_5 Lev + \beta_5 \text{ Big}_6 + \beta_7 Roa + \varepsilon \quad (2)$$

where, dependent variable AQ = The residuals extracted from running Eq. 1 as a proxy for audit quality.

Independent variables:
- VPR = Dummy variable which is take 1 if the firm voluntary rotate its partner audit and 0 otherwise
- VFR = Dummy variable which is take 1 if the firm voluntary rotate its firm audit and 0 otherwise

Control variables:
- Size = Natural log of the total assets.
- Lev = Financial leverage equals total liabilities divided by owner's equity
- Big 4 = Dummy variable which is take 1 if the auditor is one of the Big 4 audit and 0 otherwise
- ROA = Return on assets equals net income divided by total assets
- Tenure = Number of audit period for the auditor

The variables Size, Lev, Big 4 and ROA are the control variables according to prior literature (e.g., Dopuch *et al.*, 2001; Johnson *et al.*,2002; Myers *et al.*, 2003; Carey and Simnett, 2006; Sugiri and Febrianto, 2011; Elder *et al.*, 2015).

RESULTS AND DISCUSSION

Data collection and results: We will depend on the Iraq Stock Market for the period 2015- 2017 for conducting this research depending on 165 firm-year observations. By excluding 27 observations related to firms have been written off from the Iraq Stock Exchange on 2017. So, my final sample will consist of 138 firm year observations can be presented in this Table 1 as follow:

As shown in Table 1 the observations related to banks and industries represent 48.5% from the final sample, this is due to recommendations of Iraq Stock Exchange which insure the importance of audit rotation for the both sectors.

Table 1: Sample distribution in Iraq Stock Market

Sectors	2015	2016	2017	Total
Banks	3	18	18	36
Insurance	1	2	2	5
Financial services	2	5	3	10
Services	0	2	6	8
Industries	5	12	14	31
Hotels and tourism	0	4	8	12
Agriculture	0	2	4	6
Communications	2	1	3	6
Financial transfer	3	5	13	21
Total	16	51	71	138

Table 2: Descriptive statistics

Variables	Obs	Mean	SD	Min	Max
AQ	138	0.4481148	0.239791	0.11	0.99
Tenure	138	4.540946	3.291566	3	9
VPR	138	0.289834	0.38453	0	1
VFR	138	0.31678	0.43687	0	1
Size	138	700845.6	375030	172038.6	1548347
Lev	138	3.157797	6.469371	0.17	52.15
Big 4	138	0.47534	0.55368	0	1
Roa	138	0.1894074	0.1445728	0	0.933

As shown in Table 2, the mean of tenure of the auditor equal 4.5 which means that the majority of observation don't commit with the audit rotation and retain the auditor for a medium term according to in Iraq Stock Exchange which is agree with (Johnson *et al.*, 2002). Besides the means of VPR and VFR are 0.29 and 0.32, respectively which approximately equal the means represented in Kwon *et al.* (2014) and Elder *et al.* (2015) which are 0.33 and 0.37 and 0.35 and 0.42, respectively. These results of descriptive statistics mean the comparability of the results of our study to other literature.

After showing the main descriptive statistics we must conducting pearson correlation for identifying the correlation degree among variables included in the empirical model for testing hypotheses defining the initial view of hypothesis validity and multicolinearity problem as shown below.

In the case of no relationship among variables included in the above matrixgreater than 0.8, this means that the hypothesis of our study are valid to test. And hence, based on results shown in Table 3, we find there is no relationship greater than 0.8 so we can sure that our hypothesis are valid for testing.

In addition, we find a negative relationship between AQ and Big 4, this mean that the existence of big 4 auditors lead to decrease the absolute value of discretionary accruals which means increasing the audit quality. Besides, we find a positive relationship between size and the absolute value of discretionary accruals which means the increasing size of the firm lead to decrease the level of audit quality, i.e., the bigger company have a lower quality of audit than small companies and the firms which audited by one of the Big 4 auditors have a higher quality than others in Iraqi Stock Exchange.

Table 3: Pearson correlation matrix

Variables	AQ	VFR	VPR	Tenure	Size	ROA	Lev	Big 4
AQ	1.000							
VFR	0.048	1.000						
VPR	-0.058	-0.120	1.000					
Tenure	-0.061	-0.025	-0.224	1.000				
Size	0.581	0.014	0.085	-0.134	1.000			
ROA	0.152	-0.198	0.305	-0.075	-0.252	1.000		
Lev	0.308	-0.177	0.242	-0.024	-0.523	0.331	1.000	
Big4	-0.018	-0.084	0.457	-0.159	-0.059	-0.131	0.339	1.000

Table 4: Regression analysis results

Variables	Dependent variable-Audit Quality (AQ)			
	Coef.	t-stat.	p-value	VIF
Constant	-0.0366	-2.0900	0.0410	
VFR	0.0236	7.5100	0.0000	1.9800
VPR	-0.0026	-1.3800	0.1730	1.3700
Tenure	-0.2814	-7.7800	0.0000	2.0900
Size	0.0002	0.2200	0.8280	2.0200
ROA	0.0073	0.6000	0.5520	1.4700
Lev	0.0003	0.4700	0.6370	1.6800
Big4	-0.0025	-1.0300	0.3090	1.7100

Industry dummies Included; Year dummies Included; N 138 and Adj. R^2 74.21 (%)

On the other side, the direction of relationship between VFR and AQ is positive and the direction of relationship between VPR, tenure and AQ is negative which may refers to the audit firm rotation lead to decrease the audit quality and may refers to the partner rotation lead to increase the audit quality. And these two results may refer to increasing tenure lead to higher audit quality which complies with the negative relationship between tenure and AQ.

As shown in Table 4, the existence of a significant positive relationship between voluntary firm rotation and the absolute value of discretionary accruals which means a significant negative relationship between voluntary firm rotation and audit quality, i.e., increasing the level of voluntary firm rotation lead to lower level of audit quality.

This result leads us to refuse the null H_{1a} of the first hypothesis and accepting the alternative hypothesis which insure the existence of a negative relationship between voluntary firm rotation and audit quality. This result agree with some prior literature (Carey and Simnett, 2006; Davis *et al.*, 2009).

On another vein, we find insignificant negative relationship between voluntary partner rotation and the absolute value of discretionary accruals which means insignificant relationship between voluntary partner rotation and audit quality. This result leads us to accept the null H_{1b} of the first hypothesis and refusing the alternative hypothesis which insure no relationship between voluntary partner rotation and audit quality. This result agree with some prior literature (Carey and Simnett, 2006; Davis *et al.*, 2009; Sugiri and Febrianto, 2011; Elder, *et al.*, 2015). Building on these results we can accept the first alternative hypothesis which means that voluntary audit rotation lead to lower audit quality on the

Iraqi Stock Exchange. In addition, we find a significant negative relationship between audit tenure and the absolute value of discretionary accruals which means a significant positive relationship between audit tenure and audit quality, i.e., the longer audit tenure lead to higher level of audit quality.

This result leads us to refuse the null second hypothesis and accepting the alternative hypothesis which insure the existence of a positive relationship between audit tenure and audit quality. This result agree with some prior literature (Geiger and Raghunandan, 2002; Johnson *et al.*, 2002; Myers *et al.*, 2003; Carcello and Nagy, 2004; Chi and Huang, 2005; Carey and Simnett, 2006; Gul *et al.*, 2007; Knechel and Vanstraelen, 2007; Stanley and DeZoort, 2007; Chen *et al.*, 2008; Jenkins and Velury, 2008; Manry *et al.*, 2008; Davis *et al.*, 2009; Gul *et al.*, 2009). This result agrees with two results stated above.

CONCLUSION

Our study tries to analyze the relationship between voluntary audit rotation by the two both level (partner/firm) on the audit quality on the Iraq Stock Exchange using a sample of 138 firm year observations for the period 2015-2017. We found a significant positive relationship between voluntary firm rotation and the absolute value of discretionary accruals which means a significant negative relationship between voluntary firm rotation and audit quality, i.e., increasing the level of voluntary firm rotation lead to lower level of audit quality. In addition, we found a significant negative relationship between audit tenure and the absolute value of discretionary accruals which means a significant positive relationship between audit tenure and audit quality. On the other side, we found no relationship between voluntary partner rotation and audit quality which means voluntary partner rotation doesn't have an effect on the audit quality.

REFERENCES

Boone, J.P., I.K. Khurana and K.K. Raman, 2008. Audit firm tenure and the equity risk premium. J. Account. Aud. Finance, 23: 115-140.

Carcello, J.V. and A.L. Nagy, 2004. Audit firm tenure and fraudulent financial reporting. Auditing J. Practice Theory, 23: 55-69.

Carey, P. and R. Simnett, 2006. Audit partner tenure and audit quality. Account. Rev., 81: 653-676.

Chen, C.Y., C.J. Lin and Y.C. Lin, 2008. Audit partner tenure audit firm tenure and discretionary accruals: Does long auditor tenure impair earnings quality?. Contemp. Accounting Res., 25: 415-445.

Chi, W. and H. Huang, 2005. Discretionary accruals, audit-firm tenure and audit-partner tenure: Empirical evidence from Taiwan. J. Contemp. Account. Econ., 1: 65-92.

Choi, J.S., H.J. Lim and D. Mali, 2017. Mandatory audit firm rotation and big4 effect on audit quality: Evidence from South Korea. Asian Acad. Manage. J. Account. Finance, 13: 1-40.

Davidson, R.A. and D. Neu, 1993. A note on the association between audit firm size and audit quality. Contemp. Accounting Res., 9: 479-488.

Davis, L.R., B.S. Soo and G.M. Trompeter, 2009. Auditor tenure and the ability to meet or beat earnings forecasts. Contemp. Account. Res., 26: 517-548.

DeAngelo, L.E., 1981. Auditor size and audit quality. J. Account. Econ., 3: 183-199.

DeFond, M.L. and J.R. Francis, 2005. Audit research after sarbanes-oxley. Aud. J. Pract. Theory, 24: 5-30.

Dopuch, N., R.R. King and R. Schwartz, 2001. An experimental investigation of retention and rotation requirements. J. Account. Res., 39: 93-117.

Elder, R.J., S. Lowensohn and J.L. Reck, 2015. Audit firm rotation, auditor specialization and audit quality in the municipal audit context. J. Gov. Nonprofit Account., 4: 73-100.

Febrianto, R., F. Dini, D. Audina, Y. Yuskar and V. Juita, 2017. The influence of pseudo auditor rotation on audit quality: New evidence. Australas. Account. Bus. Finance J., 11: 71-85.

Firth, M., O.M. Rui and X. Wu, 2012. How do various forms of auditor rotation affect audit quality? Evidence from China. Intl. J. Account., 47: 109-138.

Geiger, M. and K. Raghunandan, 2002. Auditor tenure and audit reporting failures. Auditing J. Practice Theory, 21: 67-78.

Gul, F.A., B.L. Jaggi and G.V. Krishnan, 2007. Auditor independence: Evidence on the joint effects of auditor tenure and nonaudit fees. Auditing: A J. Pract. Theory, 26: 117-142.

Gul, F.A., S.Y.K. Fung and B. Jaggi, 2009. Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. J. Account. Econ., 47: 265-287.

Harber, M. and D. Hart, 2018. Mandatory audit firm rotation: South African academics perspective. Southern Afr. J. Accountability Aud. Res., 20: 101-114.

Jackson, A.B., M. Moldrich and P. Roebuck, 2008. Mandatory audit firm rotation and audit quality. Managerial Auditing J., 23: 420-437.

Jenkins, D.S. and U. Velury, 2008. Does auditor tenure influence the reporting of conservative earnings?. J. Account. Pub. Policy, 27: 115-132.

Johnson, V.E., I.K. Khurana and J.K. Reynolds, 2002. Audit-firm tenure and the quality of financial reports. Contemporary Account. Res., 19: 637-660.

Johnson, W.B. and T. Lys, 1990. The market for audit services: Evidence from voluntary auditor changes. J. Account. Econ., 12: 281-308.

Jones, J.J., 1991. Earnings management during import relief investigations. J. Account. Res., 29: 193-228.

Knechel, W.R. and A. Vanstraelen, 2007. The relationship between auditor tenure and audit quality implied by going concern opinions. Aud. J. Pract. Theory, 26: 113-131.

Kwon, S.Y., Y. Lim and R. Simnett, 2014. The effect of mandatory audit firm rotation on audit quality and audit fees: Empirical evidence from the Korean audit market. Aud. J. Pract. Theory, 33: 167-196.

Manry, D.L., T.J. Mock and J.L. Turner, 2008. Does increased audit partner tenure reduce audit quality?. J. Account. Audit. Finance, 23: 553-572.

Myers, J.N., L.A. Myers and T.C. Omer, 2003. Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation?. Accounting Rev., 78: 779-799.

Nagy, A.L., 2005. Mandatory audit firm turnover, financial reporting quality and client bargaining power: The case of Arthur Andersen. Account. Horizons, 19: 51-68.

Nicolaescu, E., 2014. The effects of audit firm rotation on earnings quality. Econ. Manage. Financial Markets, 9: 148-153.

Reynolds, J.K. and J.R. Francis, 2000. Does size matter? The influence of large clients on office-level auditor reporting decisions. J. Account. Econ., 30: 375-400.

Shu, S.Z., 2000. Auditor resignations: Clientele effects and legal liability. J. Account. Econ., 29: 173-205.

Stanley, J.D. and F.T. DeZoort, 2007. Audit firm tenure and financial restatements: An analysis of industry specialization and fee effects. J. Account. Pub. Policy, 26: 131-159.

Sugiri, S. and R. Febrianto, 2011. Does mandatory auditor rotation increase audit quality?: A test of Indonesian ministry of finances decree effectiveness. Master Thesis, Syiah Kuala University, Banda Aceh, Indonesia.