Audit Firm Tenure and Audit Quality Implied by Discretionary Accruals and Modified Opinions: Evidence from Turkey

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Abstract: Accounting scandals and bankruptcies across the world have raised concerns about the financial statement audit quality. Though, prior results documented mixed results, some argue that auditors become more familiar with the client and therefore independence is impaired when audit firm tenure gets longer. Consequently, some regulators set a limit on the number of years an audit firm may audit the same client. This study examines the association between audit firm tenure and audit quality in Turkey. We used three measures to proxy audit quality such as propensity to issue modified audit reports and discretionary accruals determined by two models. We found some evidence that audit quality does not increase with limited audit firm tenure. Given the additional costs associated with audit switch, it is concluded that there are minimal benefits of mandatory firm rotation. The results of this study will be useful for the regulators who are in charge to improve the audit quality.

Keywords: mandatory rotation; audit tenure; audit quality

JEL Classification: M41; M42

1. Introduction

Mandatory rotation of audit firm or partner becomes a controversial subject after the accounting and auditing scandals in the world such as Enron, WorldCom, Parmalat, Xerox, Tyco, Adelphia, Health South, Royal Ahold NV et cetera. Sarbanes Oxley Act of 2002 considered audit firm tenure as a potential area that needed to be investigated because the consecutive years of auditor-client relationship has the potential to impair auditor independence. There are increasing calls for audit committees to consider voluntary firm rotation as a means of

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enhancing audit quality[1]. These calls for voluntary audit firm rotation presuppose that audit quality increases when a new audit firm is retained. Several countries currently have mandatory audit firm rotation regulation. Italy has required audit firm rotation since 1975, Brazil since 1999, and Singapore has required audit firm rotation for local banks since 2002. Numerous other countries including Austria, Canada, Greece, Spain and Slovakia previously required mandatory audit firm rotation (Corbella et al., 2015). In December 2012, the Netherlands issued the Dutch Audit Profession Act, limiting audit firm tenure to eight-year effective from 1 January 2016. Furthermore, according to rules published in the Offical Journal of the European Union, listed companies, banks, and insurance companies must change their audit firms after 10 years (EU Regulation, No: 537/2014). This period can be extended to 20 years if the audit is put out for bid, or 24 years in instances of joint audits. Some argue that the quality of audits increase when a newly appointed auditor with fresh and skeptical eyes evaluates the financial statements. Assigning the same personnel on a same audit client over a long period of time believed to impair independence because of self-interest and familiarity threats (Eilifsen, Messier, Glover & Prawit, 2010). This research paper seeks some evidence whether long audit firm tenure give rise to decreases in audit quality.

In Turkey, a policy of mandatory firm tenure is in place. According to the new Independent Audit Communiqué issued in December 2012 by Turkish Public Oversight Accounting and Auditing Standards Authority (POA), in an audit of the public interest entity, a firm shall not be the auditor for more than seven years for the last ten years (Official Gazette, 25809). In the cooling-off period the firm shall not participate in the audit of the entity, provide quality control for the engagement, consult with the engagement team or the client regarding technical or industry-specific issues, transactions or events, or otherwise directly influence the outcome of the engagement. Therefore, an empirical evaluation should be undertaken whether this policy is beneficial.

This study examines if there is a change in audit quality associated with firm tenure. We used three measures to proxy audit quality such as propensity to issue modified audit reports and discretionary accruals determined by two models. We traced the length of firm tenure for all listed companies in Turkey for 2014.

Our findings show that audit quality does not increase when audit firm tenure is limited. This result does not support recent legislations requiring mandatory audit firm rotation in Turkey. We propose that other precautions such as quality control activities by the oversight board may need to be considered to overcome concerns about audit quality. We expect that, the findings of this study contributes the regulation of the (POA) with regard to audit-firm rotation.

[1]See NYSE (2003) and TIAA-CREF (2004), among others.

The remainder of this paper is organized as follows. Section 2 outlines previous research. Section 3 presents research model and data. This is followed by the results for each of the three audit-quality measures in Section 4. Conclusions, limitations and contributions are presented in final section of the paper.

2. Literature Review

Prior studies have documented mixed results between audit tenure and audit quality relationship. Carey and Simnett (2006) investigated Australian companies and found evidence of decreased audit quality measured by the auditor's propensity to issue a going-concern audit opinion and just meeting (missing) earnings benchmarks, associated with long partner tenure. They also show that decrease in audit quality belongs to non-Big 6 auditors. Junaidi et al. (2012) show that the length of relationship between auditors and clients has a significantly negative effect on the propensity to issue going-concern opinions. Machida and Hayashi (2012) found that audit quality is reduced in cases of long term audit tenure. In addition, they do not find significant difference between audit partner rotation and audit firm rotation when evaluated based on going-concern opinions. Mgbame et al (2012) investigates the association between the tenure of an auditor and audit quality. Their analysis show that there is a negative relationship between auditor tenure and audit quality. Chi and Huang (2005) examines how audit tenure affects earnings quality by investigating the effect of audit-firm and audit-partner tenure on the level of discretionary accruals. They find that familiarity helps to produce higher earnings quality, but excessive familiarity results in lower earnings quality. They argue that the cut-off point of the positive and negative effects of familiarity is nearly five years.

On the other hand, Johnson et al. (2002) find that relative to medium audit-tenures of four to eight years, short audit-firm tenures of two to three years are associated with lower –quality financial reports. In contrast, they found no evidence of reduced financial- reporting quality for longer audit-firm tenures of nine or more years. Geiger and Raghunandan (2002) investgated the relationship between audit tenure and auditing failures. Their result indicate that there were significantly more audit reporting failures in the earlier years of the auditor-client relationship than when auditors had served these clients for longer tenures. Manry et al. (2008) found evidence that for small companies, regardless of the level of engagement risk, audit quality actually may increase as audit partner tenure increases. They found no significant relationship between partner tenure and audit quality for large low-risk or high-risk companies or for smaller companies with shorter tenure. Myers et al. (2003) examine the relationship between audit tenure and audit quality. They used discretionary accruals and the current accruals to proxy for audit quality. They found that auditors place greater constraints on both income increasing and income decreasing accruals as the audit tenure lengthens. Their findings show that audit quality does impair with tenure. In addition, Carcello and Nagy (2004) examined the relation between audit firm tenure and fraudulent financial reporting. They found no evidence that audit quality increases when a new audit firm is retained. Rather, they found that fraudulent financial reporting is more likely when auditor tenure is three years or less. Ghosh and Moon (2005) examined perceptions of investors, independent rating agencies, and financial analysts on the relationship between auditor tenure and audit quality. They found positive association between investor perceptions of earnings quality and tenure. They document that investors and information intermediaries perceive auditor tenure as improving audit quality. Jackson et al (2008) find that when audit quality is measured by propensity to issue a going-concern opinion, audit firm tenure has positive effect on audit quality. They also find that audit quality is unaffected when measured by discretionary expenses. George (2009) investigated the effect of the auditor-client consecutive years of relationship on financial reporting quality. He found that the financial statement fraud is most likely to occur in the initial years of auditor engagement. The longer audit firm tenure is associated with lower probability of fraudulent financial reporting. Rohami et al (2009) examined the relationship between audit firm tenure and audit reporting quality in Malaysia. They found a positive relationship between audit firm tenure and audit reporting quality. Knechel and Ann Vanstraelen (2007) investigated the relationship between auditor tenure and audit quality for Belgium companies. They used the propensity to issue a going concern opinion as a measure of audit quality. Using a sample of stressed bankrupt companies, and stressed non-bankrupt companies, their findings reveal that auditors do not become less independent over time nor do they become better at predicting bankruptcy. Krauss et al (2014) found that audit engagement tenure wouldn't be a significant factor with regard to audit quality for a comparative sample of firm observations from Germany and the United States.

3. Research Model and Data

In this study, we search for a possible association between audit firm tenure and audit quality. To examine this relationship, we use two models of discretionary accruals and propensity to issue modified (emphasis of matter paragraph for going concern, qualified, adverse, and disclaimer) audit opinions as a measure of audit quality. A substantial body of prior research used discretionary accruals and going concern opinions as proxies for audit quality (Manry, Mock & Tunner, 2008; Chan, Lin & Lin, 2008; Jackson, Moldrich & Roebuck, 2008; Carey & Simnett, 2006, Knechel & Vanstraelen, 2007).

First, the cross-sectional version of modified Jones model (Dechow, Sloan & Sweeney, 1995) is used to estimate discretionary accruals. However, due to the fact that performance-matched discretionary accrual measures enhance the reliability of the inferences from earnings management research (Kothari, Leone & Wasley 2005), we control for the company's prior performance and measure discretionary accruals (DA) as follows:

$$\mathrm{D}A_t = TAC_t - [\emptyset_1\,(1/TA_{t-1}) + \emptyset_2\,(\Delta SALES_t - AR_t) + \emptyset_3 + \emptyset_4\,ROA_{t-1}]$$

Where;

TAC_t = Total accruals (earnings before extraordinary items minus net cash flow from operations)

TA_{t-1} = Total assets

$\Delta SALES_t$ = Change in net sales

ΔAR_t = Change in net accounts receivable

PPE_t = Net property, plant, and equipment

ROA = The rate of return on total assets

t = The event period

TAC_t, Δ $SALES_t$, ΔAR_t, and PPE_t are scaled by lagged total assets, TA_{t-1}. The coefficients, $ø_1$, $ø_2$, $ø_3$, and $ø_4$ are the parameters from estimating the following model by industry-year, consistent with Chan, Lin, Lin, 2008.

$$TAC_t = \emptyset_1\,(1/TA_{t-1}) + \emptyset_2\,(\Delta SALES_t - AR_t) + \emptyset_3\,PPE_t + \emptyset_4\,ROA_{t-1} + \mathcal{E}_t$$

Second, we used Larcker and Richardson (2004) model of discretionary accruals. This model adds book-to-market ratio (BM) as a proxy of expected growth in the operations of firms and cash flows from operations (CFO) to avoid the effect of extreme firm performance on accruals since the Modified Jones Model determine wrongly discretionary accruals in extreme firm performance. The Larcker and Richardson Model is as follows;

$$TAC_t = \emptyset_0 + \emptyset_1\,(\Delta SALES_t - AR_t)\,/\,\mathrm{TA}_{t-1} + \emptyset_2\,\mathrm{PPE}_t/\,\mathrm{TA}_{t-1} + \emptyset_3\,\mathrm{CFO}_t\,/\,\mathrm{TA}_{t-1} + \emptyset_4\,\mathrm{BM}_t + \mathcal{E}_t$$

Where:

TAC_t = Total accruals (earnings before extraordinary items minus net cash flow from operations)

TA_{t-1} =Total assets

$\Delta SALES_t$ = Change in net sales

ΔAR_t = Change in net accounts receivable

PPE_t = Net property, plant, and equipment

CFO_t = Cash flows from operations in the period

BM_t = Book to Market ratio in the period

t = The event period

We test the association between DA and audit firm tenure with the following regression equation;

$$\mathrm{DA} = \beta_0 + \beta_1\,\mathrm{FT} + \beta_2\,\mathrm{BIG4} + \beta_3\,\mathrm{OPINION} + \beta_4\,\mathrm{SIZE}\,\varepsilon_t$$

FT = Audit firm tenure

BIG4 = a dummy variable equal to 0 if the company is audited by a Big 4 audit firm, and 1 otherwise

OPINION = a dummy variable equal to 0 if the auditor's opinion is unqualified opinion and 1 otherwise

SIZE = logarithm of year-end book value of total assets

Third, we use auditor's propensity to issue a modified opinion in order to measure audit quality. We control some variables that influence the modified audit opinions. If the probability of issuing modified audit reports is inversely related to long audit firm tenure, this shows that long firm tenure impairs audit quality. The following logistic regression model estimates the auditor's probability of issuing a modified opinion:

$$\mathrm{OPINION} = \beta_0 + \beta_1\,\mathrm{BIG4} + \beta_2\,\mathrm{FT} + \beta_3\,\mathrm{SIZE} + \varepsilon_t$$

The data for this study is collected from the published financial statements and audit reports of non-financial companies listed on the Borsa Istanbul in 2014. For sample companies we trace back the audit reports to get firm tenure and modified audit reports. Excluding non-financial companies and companies with missing data, the sample results in an observation of 234 Turkish listed companies.

4. Results

Table 1 presents the results of Modified Jones Model estimating the relationship between discretionary accruals (a proxy for audit quality) and audit firm tenure. We found no support that discretionary accruals are lower in the earlier years of firm tenure. For the model, FT (firm tenure) is not significant. The model suggest that there is no association between long audit tenure and audit quality.

Table 1. Regression Results for Modified Jones Model

Variables	Coefficient	t-value	p-value
Experimental Variable			
FT	-,058	-,770	,442
Control Variables			
OPINION	-,149	-2,044	,042
BIG 4	-,115	-1,444	,150
SIZE	,048	,634	,527
Constant		1,812	,072
Adj. R^2	,018		
Dependent Variable: DA			

The results of Larcker and Richardson Model presented in Table 2 shows that there is a negative and significant relationship between FT (firm tenure) and audit quality on the level of discretionary accruals. This finding reveals that audit quality increases with long audit firm years. The results suggest that familiarity helps to produce higher audit quality.

Table 2. Regression Results for Larcker and Richardson Model

Variables	Coefficient	t-value	p-value
Experimental Variable			
FT	-,136	-,1845	,067
Control Variables			
OPINION	-,258	-3,617	,000
BIG 4	-,056	,716	,475
SIZE	,012	-,167	,868
Constant		1,883	,061
Adj. R^2	,059		
Dependent Variable: DA			

Table 3 shows the results of logistics regression between FT (firm tenure) and audit quality, when proxied by the propensity to issue a modified audit opinion. The model does not find significant relationship between audit firm rotation and audit quality. Therefore, we found no evidence of reduced audit quality for longer audit firm tenures.

Table 3. Regression Results for Modified Opinions

Variables	B	S.E.	Wald	Sig.
Experimental Variable				
FT	-,112	,143	,613	,434
Control Variables				
BIG 4	,532	,517	1,059	,303
SIZE	,000	,000	3,454	,063
Constant	-1,345	,682	3,892	,048
Dependent Variable: OPINION				

5. Conclusion

This paper investigated the relationship between audit firm tenure and audit quality for non-financial traded companies in Turkey. Using three proxies of audit quality, we found some evidence that there is an increase in audit quality conditional on the length of audit firm tenure in Turkey. This finding suggest that audit quality does not deteriorate with audit firm tenure or audit quality increases when a new audit firm is retained. According to this results we can conclude that Turkish capital market will not benefit from mandatory audit firm rotation.

The examination of multiple proxies of audit quality provides greater confidence in the relationship between audit quality and audit firm tenure. In addition, we suggest that other initiatives such as more effective quality control or penalizing activities by the oversight board may need to be considered to address concerns about audit quality. Future research may investigate the relationship between audit quality and mandatory partner rotation in Turkey.

Our results should be interpreted cautiously as our study is subject to several limitations. First, the maximum audit engagement length in our sample is limited to seven years since there have been a mandatory audit-firm rotation regime in Turkey since 2010. Therefore we were unable to show the potential impact of long-term audit tenure on our empirical results.

Despite the application of mandatory audit-firm rotation in Turkey since 2010, the relation between audit firm tenure and audit quality has received little attention in academic research. We believe that our findings add to the growing body of literature on mandatory audit firm rotation. The results of this study will be useful for the regulators (POA) to improve the audit quality in Turkey.

6. References

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