

Earnings Management, Audit Quality and Legal Environment: An International Comparison

Mehmet Ünsal Memiş

Çukurova University, Faculty of Economic and Administrative Sciences,
Department of Business Administration, Adana, Turkey.
Email: mmemis@cu.edu.tr

Emin Hüseyin Çetenak

Çukurova University, Faculty of Economic and Administrative Sciences,
Department of Business Administration, Adana, Turkey.
Email: cetenak@cu.edu.tr

ABSTRACT: This paper investigates the relationship between earnings management-audit quality and earnings management-legal system quality by using 1507 firms' observations from listed companies in private firms across different 8 emerging countries. Consistent with previous research, differentiation between Big 4 and non-Big 4 audit firms are used as a audit quality proxy and discretionary accruals are used to measure the earnings management. According to the results, only for Brazilian and Mexican companies, there is significant relationship between the discretionary accruals and audit quality. For the other countries there is not significant relationship. Furthermore efficiency of the legal system helps decrease earnings management incentives. Along with results, the big four auditors do not constrain the earnings management incentives in every emerging country but effective legal system does. In this analysis we used other earnings management related variables like the size of the firms, leverage, lagged ROA of the firms which have loss in the previous year and Tobin Q as control variables.

Keywords: Audit Quality; Earnings Management; Legal Enforcement

JEL Classifications: M41; M42; M48

1. Introduction

In the aftermath of some financial scandals reported in certain firms and entities in recent years, the role of legal arrangement and auditing in validating financial information of the firms is now more crucial and urgent. The discrepancies resulted from the quality of auditing emerge in the form of discrepancies in the reliability of auditors and the quality of their clients' earnings. Since auditing quality is ambiguous and multidimensional, there is no particular auditing criterion. Previous studies often rely on the auditor's reputation and have examined the relationship between reputation and earnings quality as a result (Hajizadeh and Rahimi, 2012:59).

Agency theory based perspective states that audited financial statements are a monitoring mechanism to provide users assurance of financial information (Dang, 2004).

De Angelo's definition of audit quality (1981) is two- dimensional. Audit quality is a function of the auditor's ability; First; to detect material misstatements and errors in financial statements (technical capabilities). Second; to report these materials misstatements and errors (Auditor independence).

Audit quality is assumed to be a function of auditor's independence; however, the technical capability of auditors or the probability that the auditor will discover material misstatements and going concern breaches is usually assumed to be invariant across auditors. Litigation and disciplinary sanctions are supposed to ensure auditor independence. In lack of such enforcement mechanisms, auditors might be tempted to compromise their independence and hence, neglect to constrain earnings management or issue a qualified opinion when necessary (Tandeloo and Vanstraelen, 2008:450-51).

Healy and Wahlen (1999:368) note that earnings management results in discretion in financial reporting with the intent of either misleading stakeholders about an entity's performance, or influencing contractual outcomes based on accounting numbers. Earnings management can manipulate numbers because accrual basis income depends on the use of estimates in the financial reporting process. For example, current earnings could be boosted by underestimating bad debts on credit sales or expected warranty costs on the goods sold (Huang et al., 2008).

The extent of earnings management may depend on the company's auditor. The company may adopt a more conservative approach to financial reporting in the face of a higher quality audit (McNichols and Stubben, 2008). Accordingly, other researchers have examined audit quality as a measure of earnings quality (Lenard and Yu, 2012; Boone et al., 2010; Jenkins and Velury, 2008; Becker et al., 1998). The above authors who studied U.S. companies used The Big Four auditors to distinguish audit quality.

On the other hand, audit quality or auditor itself may not be able to reduce an earnings management practice which was made with the intent of either misleading stakeholders about an entity's performance or affecting contractual outcomes. Earnings management is expected to decrease in countries which have efficient legal system to protect stakeholders' right other than audit quality, because strong protection restricts insiders' skills to gain personal benefits.

Previous international comparative studies on legal systems have concentrated on investor protection. Investor protection is defined as the power to prevent manager from expropriating minority shareholders and creditors within the constraints imposed by law (La Porta et al., 2002). In this aspect Leuz et al. (2003) investigated the relationship between investor protection and earnings management in 31 countries from 1990 to 1999. They have found earnings management decreases in countries with stronger investor protection. Boonlert et al. (2006) also examined the relationship between investor protection and earnings management in 31 countries from 1996 to 2002, and suggested that earnings are smoothed in countries where investor protection has progressed. Moreover, Shen and Chih (2005) studied on banks in 48 countries and showed that earnings management lower in countries with stronger investor protection and more transparent accounting disclosure (Enomoto et al., 2012).

In this study, in addition to audit quality, we will examine earnings management and quality/strength of legal system enforcement relationship by using Rule of Law and Control of Corruption indices, which constructed by Kaufmann et al. (2010). This study contributes to recent literature by examining audit quality-earnings management, legal system quality-earnings management in private firms across 8 different emerging countries. Section two provides discussion in literature, section three provides methodology and results and section four concludes.

2. Literature Review

Audit quality has been investigated within a variety of perspectives in the literature. According to Chadegani (2011:313), efforts of measuring audit quality can be distinguished as direct measures and indirect measures.

- **Direct Measures** include financial reporting compliance with GAAP, quality control review, bankruptcy desk review and SEC performance.
- **Indirect Measures** include audit company size, auditor tenure, industry expertise, audit fees, economic dependence, reputation and cost of capital.

In line with our studies' nature and content, we will focus on indirect measures. The most commonly used indirect measure of audit quality is Audit Company size (Chadegani, 2011:313). De Angelo (1981) proposes that the size of the audit firm is an indicator of audit quality because larger firms are better equipped. He theoretically introduces the relationship between audit quality and audit firm size considering that large audit firms are more independent. The quality of audits increase as the size of the firm gets larger. According to De Angelo, many researchers have empirically examined the relationship between audit firm size and audit quality (Hajizadeh and Rahimi, 2012:59, 60).

There are some empirical papers that have provided additional support for the use of auditor size as a proxy for audit quality. For example, Davidson and Neu (1993) argued that managers have incentives to manipulate the reported earnings to meet the analysts' forecasts. Therefore, if large auditing firms provide higher-quality audits than small auditing firms, we may expect the forecast

errors of big auditing firms' clients to be larger. Using data for Canadian firms, his results support that expectation, indicating that the auditor size is a good proxy for auditing quality.

Lennox (1999) examined the two explanations of the hypothesized positive relationship between audit quality and auditor size: the reputation hypothesis suggested by DeAngelo (1981), argues that large auditors are more incentives to be accurate because they have more client-specific rents to lose if their reports are inaccurate. The deep pockets hypothesis argued by Dye (1993), postulated that large auditors will be more accurate because they have greater wealth that is exposed to risk in case of litigation. Lennox (1999) examined the relationship between auditor size and litigation and found greater support for the deep pocket hypothesis than reputation hypothesis.

Maijor and Vanstraelen (2006) studied the effect of audit environment, audit firm quality and presence in international capital markets. They found that a stricter audit environment reduces the magnitude of earning management, irrespective of the type of auditor, and no evidence of an international Big Euro audit quality effect in Europe.

Sun and Lui (2011) found that the effectiveness of Big N auditors over non-Big N auditors in constraining earning management is greater for high-litigation-risk-clients than for low litigation risk clients, suggesting that clients' high litigation risk can force big auditors to perform more effectively.

Earnings, regarded as one of the most significant financial statement items, are at the basis of decision criteria for the companies to evaluate their performance and determine the value of the entity. The purpose of earnings report includes providing useful information for measuring the efficiency of management, predicting the entity's future performance and distribution of earnings, defining a base for determination of taxes, taking account of the price of products and so on (Hajizadeh and Rahimi, 2012).

In the consideration of earnings, it is not only the quantity that matters; the quality is also important since different ways of presenting the economical events of an entity allows its management to have more options when dealing with earnings reports. However, this advantage may be detrimental to earnings quality. Therefore, the consideration of earnings quality and the following monitoring processes are very crucial. One of the monitoring processes is independent auditing done by professional individuals in order to increase the assurance of financial information for its users (Hajizadeh and Rahimi, 2012:58).

Piot and Janin (2005) argued that auditing can contribute to reducing earnings management which in turn impedes false information in earnings report. In other words, those companies which have their financial statements audited will consequently possess a high quality information content of earnings. Accruals vary according to the managers' decisions and more accruals will lead to more difficult auditing. When the audit quality is high, the possibility of recognizing auditing errors is also high because as the quality and specialization of a firm increases, the resources and incentives for error-recognition will simultaneously grow.

Bartov et al. (2000) examined six large audit firms to evaluate audit quality. They hypothesized that these firms possess high audit quality and that companies which are not audited by these firms are trying to present more accruals in order to modify the earnings. The result of the research confirmed the hypothesis.

The difference in audit quality between Big Four and Non-Big Four audit firms has received considerable attention in prior research (Tandeloo and Vanstraelen, 2008). Previous studies generally use the dichotomous Big Four/non-Big Four audit variance to capture audit quality differences. Prior research (Becker et al., 1998, Francis et al., 1999) has shown that Big Four auditors provide a significant constraint on earnings management for public firms. In similar fashion, Tandeloo and Vanstraelen (2008) researched the private sector taking in to account the Big Four and non-Big Four audit firms distinction.

Since earnings management in private firms denies the users of financial statements the right to obtain reliable information, the task of the auditor is to protect such stakeholders' interests. The incentives of (especially large) audit firms to supply a high quality audit stem from the risk of litigation when an audit failure is detected, thereby damage the auditor's reputation (Tandeloo and Vanstraelen, 2008:448). The Big Four audit firms have an incentive to provide a uniform level of audit quality across different market segments and hence would be inclined to supply high quality audits also in privately held client firms. Hence, it is an empirical question whether reputation

concerns of Big Four auditors are sufficiently strong to control the higher moral hazard risk in the private client segment market.

In the U.S., studies on audit quality suggest that, relative to small audit firms, large CPA firms provide higher quality audits and, as such, more aggressively constrain their clients' attempts to manage earnings in general. Significant research in the U.S. suggests that large audit firms provide higher quality audits than small firms. This is due in part to the superior training of personnel and greater industry expertise that presumably exist with large CPA firms along with a stronger desire to protect their reputations and avoid costly litigation from failed audits relative to small audit firms. A specific stream of audit quality research in the U.S. further shows that, relative to small audit firms, large firms more aggressively constrain their clients' discretionary accruals and, thus, their ability to manage earnings in general (Jordan et al., 2010:19, 20).

In this respect, we expect a large auditor to provide higher audit quality compared to a small auditor. Therefore, Big Four auditors are expected to provide higher audit quality compared to non-Big Four auditors. This leads us to the following hypothesis, stated in an alternative form:

H1: Ceteris paribus, private firms engage significantly less in earnings management when audited by a Big Four auditor compared to a firm audited by a non-Big Four auditor.

Apart from audit quality, there is a growing body of literature which examines earnings management and institutional factors (such as investor protection or legal system) relationship recently (La Porta et al. 1997; 1998; Leuz et al. 2003; Shen and Chih 2005). Ball et al. (2000) suggest that accounting earnings is systematically different in code-law countries versus common-law countries, Leuz et al. (2003) found that earnings management decreases in countries with stronger investor protection and Shen and Chih (2005) showed that earnings management lower in countries with stronger investor protection and more transparent accounting disclosure.

Regulatory authorities impose various restrictions on managers to prevent earnings management practices in order to protect stakeholders' right (Enomoto et al., 2012:4). Although the degree of restrictions differs in many countries discrepancies come from legal origin and capital markets' development (La Porta et al., 1997). Legal systems protect stakeholders' rights by conferring on them powers to discipline managers as well as by enforcing contracts designed to limit managers' benefits (La Porta et al., 1998; Claessens et al., 2002; Dyck and Zingales, 2002).

Thus, owing to firm's institutional environment determines earnings manipulations' degree, firms in countries with weak legal enforcement are more likely to enhance earnings management incentives than firms in countries with efficient legal environment. From this point of view we included two index variables to the analysis which represent general characterizations of legal systems and hypothesized:

H2: Ceteris paribus, earnings management is more constrained in countries with stronger legal enforcement.

3. Data and Methodology

In this analysis, the sample has been selected from the listed companies which operate in 8 important emerging countries. Other than these 8 countries we excluded China which has excessively floating variables and India which had not adequate observations. Consistent with previous research, we excluded banks, insurance companies, other financial holdings and public administrative institutions. Data collected from Datastream Worldscope database. Because of audit firm data is provided in Datastream only for the final year, our analyses have been made just for 2008 and 2009. Table 1 shows number of companies, 4 Big and Non 4 Big clients for each country in our dataset.

In our analysis, we used discretionary accruals to measure earnings management. Discretionary accruals are used in many earnings management studies such as Jones (1991) and Subramanyam (1996). Basically, discretionary accruals are equal to difference between total accruals and non discretionary accruals so following equation has been used to find the discretionary accruals.

$$TA_t = DA_t + NDA_t$$

$$TA_t = \text{Total Accruals}$$

$$DA_t = \text{Discretionary Accruals}$$

$$NDA_t = \text{Nondiscretionary Accruals}$$

The empirical estimation of modified Jones model required to compute total accruals. Along the lines of prior research (Healy, 1985; Jones, 1991), we use the cash flow approach to compute total accruals as follows:

$$TA_{i,t} = NIBE_{i,t} - CFO_{i,t}$$

$NIBE_{i,t}$ = company i's net income before extraordinary items in year t

$CFO_{i,t}$ = company i's net cash flow from operations in year t

Table 1. Sample

Country	Country Code	Firm Number	4 BIG	Non 4 BIG
Brazil	1	124	88	36
Greece	2	191	42	149
Israel	3	84	68	16
South Korea	4	670	436	234
Mexico	5	47	36	11
Poland	6	182	46	136
Russia	7	54	24	30
Turkey	8	155	66	89
Total		1507	806	701

Dechow et al., (1996) provides evidence that the modified Jones model is the most powerful to detect earnings management among the alternative models to measure discretionary accruals. Thus we used a modified version of the Jones model to obtain discretionary accruals from regressions of total accruals on changes in sales and on property, plant, and equipment within industries. Jones model attempts to control for the effects of changes in a firm's economic circumstances on nondiscretionary accruals. The Jones Model for nondiscretionary accruals in the event year is:

$$NDA_t = \beta_1 \left(\frac{1}{A_{t-1}} \right) + \beta_2 \left(\frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \beta_3 \left(\frac{\Delta PPE_t}{A_{t-1}} \right)$$

Where: NDA_t is the nondiscretionary accruals in year t scaled by lagged total assets; ΔREV_t is revenues in year t less revenues in year t-1, where ΔREC_t is net receivables in year t less net receivables in year t-1, PPE_t is gross property plant and equipment at the end of year t; A_{t-1} is total assets at the end of year t-1; and $\beta_1, \beta_2, \beta_3$ are industry-specific parameters for each country.

Estimates of the industry-specific parameters, β_1, β_2 and β_3 , are obtained by using the following model in the estimation period for each country:

$$\frac{TA_t}{A_{t-1}} = \beta_1 \left(\frac{1}{A_{t-1}} \right) + \beta_2 \left(\frac{\Delta REV - \Delta REC}{A_{t-1}} \right) + \beta_3 \left(\frac{PPE}{A_{t-1}} \right) + \varepsilon_t$$

Where: β_1, β_2 and β_3 , denote the country-industry specific OLS parameters, and TA_t is total accruals in year t, ε_t is the residual, which represents the discretionary portion of total accruals.

3.1. Regression Models

In order to get discretionary part of accruals we estimated 32 different regressions (8 country x 4 industry group) and obtained residuals. We used ICB general codes to classify industries. Table 2 shows the sectors which used to estimate discretionary accruals by using Modified Jones Model within industries. We haven't used SIC two digit sector specific classification because there weren't adequate observations for some countries to use Modified Jones Model.

In our analysis three models have been used to test hypothesis. First two models have been tested for whole sample (8 countries, 1507 observations) the third model has been tested for each 8 countries separately. Absolute value of Discretionary Accruals is dependent variable at all three models as a proxy of earnings management. Auditor dummy (BIG) and Rule of Law index are independent variables for the first model, auditor dummy and Control of Corruption index are

independent variables for the second model, only Auditor dummy (BIG) independent variable for the third model.

Table 2. Industrial Classification

ICB General Classification		Firms
1000	Basic Materials	210
2000	Industrials	437
3000	Consumer Goods	349
Others		511
		1507

Consistent with the literature we have used auditor dummy is a proxy for audit quality. To measure legal system quality and effectiveness we have used a Rule of Law and Control of Corruption index which comes from the Worldwide Governance Indicators project. These two indices are made by Kaufmann et al. (2010) in order to construct an aggregate Worldwide Governance Indicator. Basically, rule of Law index indicates perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. And control of corruption index reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests (Kaufmann et al., 2010:4).

In order to control variety in earnings management incentives based on firm characteristics which are associated with accruals, we added following variables as control variables. As a proxy for the size of a company, we used the natural logarithm of total assets (SIZE), which is expected to lower earnings management incentives because of company's prestige and the potential government scrutiny which increases as firms are larger and more profitable (Dechow and Dichev 2002). Another control variable is leverage variable (LEV), which is calculated as a ratio of total liabilities to total assets. Firms' leverage degree may have an impact on earnings management two different ways. While highly leveraged firms could be expected to engage more in upward earnings management to avoid debt covenant violations, alternatively, high leverage may induce income-decreasing earnings management in financially distressed firms in view of contractual renegotiations (Tandeloo and Vanstraelen, 2008). Hribar and Nichols (2007) show that controlling for differences across companies in the natural volatility of their accruals mitigates the potential bias arising from the use of the absolute value of discretionary accruals. Thus, in order to control poor performance for the previous year, we include Lagged ROA of firms which have disclosed loss at 2008. Finally, we added model Tobin Q ratio as a control variable, with the purpose of take account of market reaction, investment opportunities and intellectual capital of company.

As a result, to test the hypothesis following three regression equations has been estimated.

Model 1 (For Whole Sample)

$$DA_i = \beta_0 + \beta_1 BIG_i + \beta_2 SIZE_i + \beta_3 LEV_i + \beta_4 DROA_i + \beta_5 TOBQ_i + \beta_6 COR_i + e_i$$

Model 2 (For Whole Sample)

$$DA_i = \beta_0 + \beta_1 BIG_i + \beta_2 SIZE_i + \beta_3 LEV_i + \beta_4 DROA_i + \beta_5 TOBQ_i + \beta_6 COR_i + e_i$$

Model 3 (For Each Country)

$$DA_i = \beta_0 + \beta_1 BIG_i + \beta_2 SIZE_i + \beta_3 LEV_i + \beta_4 DROA_i + \beta_5 TOBQ_i + e_i$$

where:

- DA = Absolute value of discretionary portion of total accruals
- BIG = Audit Quality Dummy Variable
(If company works with Big 4 auditor = 1, otherwise = 0)
- SIZE = Natural logarithm of total assets in year t
- LEV = Ratio of total liabilities to total assets in year t
- DROA = ROA of the year 2008 for the firms which have negative ROA's at 2008, otherwise (positive ROA) = 0
- TOBQ = (Total Debt + Market value) / Total Assets

ROL = Rule of Law Index
 COR = Corruption Index

3.2. Results

Table 3 presents the descriptive statistics for the accruals and other company characteristics, where ALL columns presents the results for the full sample, other columns represent countries. For the 1,507 company-year observations included in the sample, average discretionary accruals is 8.1 percent. Respectively higher accruals estimated for Russian, Brazilian and Israelite companies, while Mexican has lower. Tobin q ratio varies a lot between countries. While Brazilian companies have 2.8 Tobin Q average Polish companies have 0.37 average Tobin Q ratio. Rule of Law index is 0.0375 for whole sample and control of corruption index is 0.046. These two indices may range approximately from -2.5 to 2.5 and lower values points inefficient judicial system and more corruption, positive and higher values vice versa.

Table 3. Descriptive Statistics

	ALL	1	2	3	4	5	6	7	8
DA	0.081	0.098	0.064	0.095	0.077	0.037	0.090	0.101	0.091
TOBQ	0.98	2.8	0.69	1.06	0.88	1.1	0.37	0.84	1.1
ROL	0.0375	-0.2	0.6	0.8	1	-0.6	0.6	-0.8	0.1
COR	0.046	-0.104	0.053	0.72	0.45	-0.30	0.40	-1.11	0.06

Table 4 provides ANOVA results between 4 Big and non 4 Big clients. Although all 4 big clients have lower discretionary accruals in every country only in Brazil and Mexico there are statistically significant differences.

Table 4. ANOVA Test Results

Country	Country Code	DA Mean if Big=0	DA Mean if Big=1	P Value (Sheffe)
Brazil	1	0.179	0.065	(0.001)*
Greece	2	0.065	0.058	(0.494)
Israel	3	0.096	0.094	(0.964)
South Korea	4	0.087	0.072	(0.073)
Mexico	5	0.059	0.033	(0.019)*
Poland	6	0.093	0.081	(0.487)
Russia	7	0.129	0.065	(0.084)
Turkey	8	0.10	0.079	(0.115)

Table 5 presents regressions results for model 1, 2 and 3. ALL columns shows first 2 models' regression results for the whole sample and the other columns presents third model's results for the each country. In each cell first values present estimated coefficient by OLS regression and second values present its p values.

According to results, for the whole sample, there are not significant relationship between audit quality and discretionary accruals. Only for Brazil and Mexico there are significant relationship between earnings management and audit quality, which are negative. Rule of Law and Corruption indices has negative and significant coefficient in models 1 and 2, which indicates quality of the legal system reduce earnings management incentives. SIZE variable is significant and has negative

coefficient almost for every countries except Israel, Mexico and Russia. Leverage variable is significant only for Brazil, Greece, Korea and Poland. Interestingly coefficients of this variable are both negative and positive. Tobin Q ratio is only significant for the whole sample and loss variable is only for Israel, Korea and Brazil. Furthermore the F values of models which estimated for Turkey and Russia are not significant.

Table 5. Regression results

	ALL	ALL	BRA	GRC	ISR	KOR	MEX	POL	RUS	TUR
BIG	-.002 (0.712)	-.0007 (0.907)	-.082 (0.008)*	.006 (0.550)	.0005 (0.989)	.0043 (0.631)	-.0301 (0.010)*	.0107 (0.529)	-.029 (0.556)	-.009 (0.518)
SIZE	-.008 (0.000)*	-.0089 (0.000)*	-.018 (0.015)*	-.009 (0.008)*	-.015 (0.063)	-.0079 (0.006)*	.0036 (0.153)	-.020 (0.000)*	-.011 (0.334)	-.011 (0.019)*
LEV	.0108 (0.000)*	.010 (0.000)*	-.08 (0.000)*	.035 (0.010)*	-.043 (0.238)	.049 (0.016)*	.016 (0.495)	.196 (0.000)*	.143 (0.058)	.0018 (0.905)
TOBQ	-.003 (0.000)*	-.0029 (0.000)*	.024 (0.063)	.012 (0.272)	.002 (0.841)	.007 (0.078)	.005 (0.272)	.00299 (0.921)	-.0018 (0.947)	-.001 (0.772)
DROA	-.180 (0.000)*	-.180 (0.000)*	-.845 (0.000)*	.043 (0.275)	-.344 (0.003)*	-.147 (0.000)*	-.11 (0.306)	.095 (0.072)	-.113 (0.636)	-.019 (0.737)
ROL	-.013 (0.017)*									
COR		-.016 (0.017)*								
CONS.	.201 (0.000)*	.236 (0.000)*	.417 (0.000)*	.149 (0.001)*	.28 (0.009)*	.137 (0.000)*	-.003 (0.920)	.255 (0.000)*	.185 (0.234)	.233 (0.000)*
F	24.20	24.20	27.91	3.78	4.08	12.30	2.35	18.71	1.74	1.93
Prob. F	(0.000)*	(0.000)*	(0.000)*	(0.028)*	(0.027)*	(0.000)*	(0.039)*	(0.000)*	(0.1482)	(0.0932)
Adjusted R ²	0.088	0.088	0.52	0.071	0.1740	0.0822	0.1354	0.3310	0.0740	0.0302

*= significant at %5 level

4. Conclusion

In this paper we have investigated the relationship between earnings management-audit quality and earnings management-legal system quality by using 1507 firms' observations from the listed companies in private firms across different 8 emerging countries. Consistent with the previous research, we have proposed; first: differentiation between Big 4 and non-Big 4 audit firms which represent audit quality effects earnings management incentives, second: national legal environment determines earnings manipulations' degree.

According to our results, only for Brazilian and Mexican companies, there are significant relationship between the discretionary accruals and audit quality. For the other countries there is not significant relationship. Furthermore efficiency of the judicial system helps decrease earnings management incentives.

The results of our study are relevant to the current discussion on the international comparison of legal environments and enforcements on earnings management incentives. Along with results, the big four auditors do not constrain the earnings management incentives in every emerging country but judicial system does. In other words, whether international big audit firms provide high quality services or not, audit environment, which affected directly by legal environment and effectiveness of legal system, is more important than audit quality.

References

- Ball, R., Kothari S.P., Robin, A. (2000), The effect of international institutional factors on properties of accounting earnings, *Journal of Accounting and Economics*, 29, 1-51.
- Bartov, E., Gul, F.A., Tsui, J.S.L. (2000), Discretionary-Accruals Models and Audit Qualifications, *Journal of Accounting and Economics*, 33(2), 173-204.
- Becker, C., DeFond, M., Jiambalvo, J., Subramanyam, K. (1998), The effect of audit quality on earnings management, *Contemporary Accounting Research*, 15, 1–24.
- Boone, J.P., Khurana, I.K., Raman, K.K. (2010). Do the Big 4 and the second-tier firms provide audits of similar quality? *Journal of Accounting and Public Policy*, 29(4), 330–350.
- Boonlert, K., Meek, G. K., Nabar, S. (2006), Earnings Attributes and Investor-Protection: International Evidence, *The International Journal of Accounting*, 41, 327-357.
- Chadegani, A.A. (2011), Review of Studies on Audit Quality, 2011 International Conference on Humanities, Society and Culture IPEDR, Vol.20(2011).IACSIT Pres., Singapore.
- Claessens, S., Djankov, S., Fan, J., Lang, L. (2002), Disentangling the incentive and entrenchment effects of large shareholdings, *Journal of Finance*, 57, 2741–2772.
- Dang, L. (2004), Assessing Actual Audit Quality, PhD Thesis, Drexel University. Philadelphia, USA.
- Davidson, R.A., Neu, D. (1993), A Note on the Association between Audit Firm Size and Audit Quality, 9(2), 479-488.
- DeAngelo, L.E. (1981), Auditor Size and Audit Quality, *Journal of Accounting and Economics*, 3(3), 183-199.
- Dechow, P.M., Sloan, R., Sweeney, A. (1996), Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC, *Contemporary Accounting Research*, 13(1), 1-36.
- Dechow, P.M., Dichev, I.D. (2002), The quality of accruals and earnings: The role of accrual estimation errors, *The Accounting Review*, 77, 35-59.
- Dyck, A., Zingales, L. (2002), Private benefits of control: an international comparison, Working Paper.
- Dye, R.A. (1993), Auditing Standards, Legal Liability, and Auditor Wealth, *The Journal of Political Economy*, 101(5), 887–914.
- Enomoto, M., Kimura, F., Yamaguchi, T. (2012), Accrual-Based and Real Earnings Management: An International Comparison for Investor Protection, Discussion Paper Series, Kobe University.
- Francis, J.R., Maydew, E.L., Sparks H.C. (1999), The Role of Big 6 Auditors in the Credible Reporting of Accruals, *Auditing, A Journal of Practice & Theory*, 18(2), 17-34.
- Hajizadeh, S., Rahimi, M. (2012), Audit Firm Size and Information Content of Earnings: New Evidences from Iran, *International Bulletin of Business Administration*, 13, 58-65.
- Healy, P.M. (1985), The Effects of Bonus Schemes on Accounting Decision, *Journal of Accounting and Economics*, 7, 85–107.
- Healy, P., Wahlen, J. (1999), A review of the earnings management literature and its implications for Standard setting, *Accounting Horizons*, 13(4), 365–83.
- Hribar, P., Nichols, D.C. (2007). The Use of Unsigned Earnings Quality Measures in Tests of Earnings Management, *Journal of Accounting Research*, 45, 1017-1053.
- Huang, A. H., Francis, J., Rajgopal, S., Zang, A.Y. (2008), CEO Reputation and Earnings Quality, *Contemporary Accounting Research*, 25(1), 109-147.
- Jenkins, D.S., Velury, U. (2008), Does auditor tenure influence the reporting of conservative earnings? *Journal of Accounting and Public Policy*, 27, 115-132.
- Jones, J.J. (1991), Earnings Management During Import Relief Investigations, *Journal of Accounting Research*, 29(2), 193–228.
- Jordan, C.E., Clark, S.J., Hames, C.C. (2010), The Impact of Audit Quality on Earnings Management to Achieve User Reference Points in EPS, *The Journal of Applied Business Research*, 26(1), 19-30.
- Kaufman, D., Kraay, A., Mastruzzi, M. (2010), The Worldwide Governance Indicators-Methodology and Analytical Issues, Policy Research Working Paper 5430.
- La Porta, R., Silanes, F., Shleifer, A., Vishny, R. (2002), Investor Protection and Corporate Valuation, *Journal of Finance*, 75, 1147-1170.

- La Porta, R., Silanes, F., Shleifer, A., Vishny, R. (1998), Law and Finance, *Journal of Political Economy*, 106, 1113-1155.
- La Porta, R., Silanes, F., Shleifer, A., Vishny, R. (1997), Legal determinants of external finance, *The Journal of Finance*, 52, 1131-1150.
- Lenard, M.J., Yu, B. (2012), Do Earnings Management and Audit Quality Influence Over-Investment by Chinese Companies?, *International Journal of Economics and Finance*, 4(2), 21-30.
- Lennox, C. (1999), Are Large Auditors More Accurate Than Small Auditors? *Accounting and Business Research*, 29(3), 217-227.
- Leuz, C., Nanda, D., Wysocki, P. (2003), Earnings Management and Investor Protection: An International Comparison, *Journal of Financial Economics*, 69, 505-527.
- Maijor, S., Vanstraelen, A. (2006), Earnings management within Europe: the effects of member state environment, audit firm quality and international capital markets, *Accounting and Business Research*, 36(1), 33-52.
- McNichols, M.R., Stubben, S.R. (2008), Does earnings management affect firms' investment decisions?, *The Accounting Review*, 83(6), 1571-1603.
- Piot, C., Janin, R. (2005), Audit Quality and Earnings Management in France, Working Paper.
- Shen, C. H., Chih, H.L. (2005), Investor Protection, Prospect Theory, and Earnings Management: An International Comparison of the Banking and Finance, 29, 2675-2697.
- Subramanyam, K.R. (1996), The pricing of discretionary accruals, *Journal of Accounting and Economics*, 22, 249-281.
- Sun, J., Liu, G. (2011), Client-specific litigation risk and audit quality differentiation, *Managerial Auditing Journal*, 26(4), 300-316.
- Tandeloo, B.V., Vanstraelen, A. (2008). Earnings Management and Audit Quality in Europe: Evidence from the Private Client Segment Market, *European Accounting Review*, 17(3), 447-469.