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Earnings Management, Board Independence And Audit Fees Considering The Firm's Profitability Level

Javad Moradi (Accounting Department, Islamic Azad University-Marvdasht Branch, Marvdasht, IRAN)

Hashem Valipour (Accounting Department, Islamic Azad University-Firouzabad Branch, Firouzabad, IRAN)

Zahra Pahlavan (Accounting Department, Islamic Azad University-Marvdasht Branch, Marvdasht, IRAN)

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Author (s)

Javad Moradi Faculty of Humanities, Islamic Azad University-Marvdasht Branch, Marvdasht, Iran Email: Jmoradi2005@vahoo.com

Hashem Valipour

Faculty of Humanities, Islamic Azad University-Firouzabad Branch, Firouzabad, Iran

Zahra Pahlavan

Faculty of Humanities, Islamic Azad University-Marvdasht Branch, Marvdasht, Iran

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Abstract

This study investigates the relation between earnings management, board independence and audit fees considering the firm's profitability level. Two main hypotheses have been designed by theoretical framework, and have been tested on 57 listed companies in Tehran Stock Exchange during 2003 to 2009. The statistical analysis had been done by multi-variable regression analysis and one-way ANOVA analysis, too. The findings show that there is a meaningful and positive relation between earnings management and audit fees. Also, there is a meaningful and negative relation between board independence and audit fees. The results suggest that the higher the level of profitability, the higher the audit fees.

Keywords: Earnings Management, Board Independence, Audit Fees, Discretionary Accruals

JEL Classification: G02, G11, G32

Introduction

Audit fees have been examined by many researchers that result in contradictory findings. There have been many academic and market calls suggesting that professional fees increase the financial reliance of the auditor and auditing (Becker et al, 1988; Magee and Tseng, 1990). Different factors can have effect on audit fees, such as earnings management and board independence. It has been suggested that managers have incentives to manipulate earnings management. Prior researches have indicated that there is a significant relation between earnings management and audit fees (Magee and Tseng, 1990; Leventis and Dimitropoulos, 2010). There are some evidences suggesting that audit behavior related to tactics like "low balling" or "price cutting" is positively associated with audit pricing (see Barber et al., 1987; Francis and Simon, 1987; Simon and Francis, 1988).

On the other hand, discretionary accruals play an important role in earnings management. Gul et al (2003) find a positive relation between discretionary accruals and audit fees. Discretionary accruals are related to accounting items that require judgment. As such, as discretionary accruals increases, inherent risk assessment increases that would lead to require more audit work, extensive reviews and close supervision of staff to achieve a desired level of audit assurance. Therefore, an increase in audit work is associated with increase in audit fees (Alali, 2011).

Board independence is a strong monitoring mechanism designed to mitigate agency problems. Beasley (1996) suggested that oversight by a higher quality of board is generally, associated with lower incidence of financial statement frauds. Dechow et al. (1996) provide evidence to show that certain elements of corporate governance structures are more commonly associated with earnings manipulations. They suggested that independent boards mitigate managerial fraud. Many prior papers have suggested positive association between better governance and high operating and stock market performance (Gompers et al., 2003; Masulis et al., 2007). Relatively little studies have focused on audit fees and corporate governance. Prior studies tend to point to a negative association between corporate governance characteristics and audit fees (Tsui et al., 2001; Griffin et al., 2007), because better governance reduces control risk and ensures higher quality reporting, which enables a reduction in audit risk and fees. Tsui et al. (2001) found a negative relation between board independence and audit fees. They argued that a weak internal control mechanism in a firm, as a result of CEO domination, is likely to have a negative impact on the reliability of the firms accounting system and this will result in higher control risk, in turn, it will result in higher audit effort and this will lead to higher audit fees. On the other hand, firms with independent corporate boards, which provide an effective monitoring system, are expected to be associated with lower control risk and audit fees.

Profitability is one of the important measures of valuating firm's operation. Profitability is related to the operation of the firms and the efficient use of its assets and other resources. An efficient use of resources usually results in a high return on assets. Studies carried out by Simunic (1980) and Wallace (1984) found that profitability has a significant effect on the level of audit fees. Joshi and AL-Bastaki suggested that audit fees are significantly associated with profitability of the firms and highly profitable firms pay more audit fees.

However, the main question of this study is that, Do earnings management and board independence relate to audit fees and does firm profitability affect audit fees in different firms? This relation is important for increasing the auditors' insight about some corporate characteristics that affect their fees, measures for increasing auditors' independence and the establishment of appropriate corporate governance mechanisms. Based on the result of Gul et al. (2003) and Alali (2011), discretionary accruals are positively associated with audit fees. Prior studies tend to a negative association between corporate governance characteristics and audit fees. Tsui et al.

(2001) found evidences that the independence of corporate boards is an important factor in auditors assessment of control risk and the determination of audit fees. They suggested that board independence is negatively related to audit fees. In the next section, we will review the literature.

Literature review and hypotheses development

This study examines the relation between earnings management, board independence and audit fees considering the firm s profitability level. It has been suggested that firms manage their earnings. Prior researches have indicated that economic bonding is associated with earnings management (Magee and Tseng, 1990; Leventis and Dimitropoulos, 2010). There is evidence to suggest that audit behavior related to tactics like "low balling" or "price cutting" (see Barber et al., 1987; Francis and Simon, 1987; Simon and Francis, 1988). As studied by DeAngelo (1988), DeAngelo et al. (1994), Perry and Thomas (1995) and Gul et al. (2003), accruals may be used opportunistically by managers to conceal pool performance or to postpone a portion of unusually high current earnings to future years. Accounting estimates have high inherent risk and discretionary accruals are related to these accounting estimates, as such auditor is expected to collect more evidence, assign more experienced staff and closely reviews the work done when inherent risk is high. As a result, the cost of doing the audit increases (Arens et al, 2008). Leventis and Dimitropoulos (2010) examined the effect of both earnings management and board independence on audit prices. The results based on a sample of 97 Greek companies during 2000 to 2004, showed that there is a positive association between audit independence and audit pricing. Also results indicated a positive association between audit pricing and earnings management for the small size companies. Their findings on company size showed that large firms do not bind their services with economic rentals are more likely to remain independent, probably for reasons of client visibility and reputation protection. Alali (2011)tested the relation between discretionary accruals and audit fees. Data

were collected from Compustat Industrial and Audit Analytics during 2000 to 2006. Findings indicated that there is a positive and significant relation between discretionary accruals and audit fees. Therefore, the first hypothesis is stated as follows:

Hypothesis 1: There is a meaningful relation between earnings management and audit fees.

Prior studies suggested and documented a negative relation between corporate governance and auditing. These studies contend that better governance reduces control risk and ensures higher quality reporting, which enables a reduction in audit risk and fees. Cohen and Hanno (2000) interviewed subjects concluded that and superior governance enables auditors to reduce substantive testing. Tsui et al (2001) found a negative relation between board independence and audit fees and concluded that better governance reduces control risk, which decreases fees. They stated that the effective internal monitoring by the independent corporate boards provides higher reliability to accounting, which will reduce control risk and thus result in lower scope for audit work. Griffin et al (2007) tested the relation between corporate governance and audit fees. They studied some examples from 2000 to 2005. Findings indicated that better governance reduces the cost of auditing. They explained that better governance enhances the quality of financial statements and internal controls, which enables auditors to decrease the price of audit risk and reduce fees. Thus, the second hypothesis is stated as follows:

Hypothesis 2: There is a meaningful relationship between board independence and audit fees.

Audit research studies have found a significant relation between firm profitability and audit fees (e.g., Simunic, 1980; Wallace, 1984). Joshi and AL-Bastaki (2000) showed that audit fees have a significant and positive relation with profitability and highly profitable firms pay more audit fees. They argued that highly profitable firms usually pay more fees in view of the fact that higher profits may require rigorous auditing testing of the validity for the recognition of revenue and expenses, which requires more audit time. Therefore, the third hypothesis is stated as follows:

Hypothesis 3: There is a meaningful difference between audit fees in different firms concerning the level of firm profitability.

The main purpose of the study is to test the relation between earnings management, board independence and audit fees considering the firms profitability level in accepted corporations in Tehran's Stock Exchange (TSE). We use the financial statements information of the accepted corporations in Tehran Stock Exchange organization during 2003 to 2009 to test the relation between earnings management, board independence and audit fees concerning the level of firm profitability. The data of 57 firms are used in the study for analysis.

Model development and variables calculation

The basic research approach which relies on the regression model of audit fees in this study is similar to that used in the majority of previous studies of audit fees. The dependent variable is audit fees and we use a logarithm of audit fees paid to the auditor. The proxy for earnings management (ACA) is the widelyused cross-sectional Jones (1991) model, as modified by Francis et al. (2002), in order to extract the discretionary or abnormal current accruals. This model estimates the following OLS equation:

(1)
$$\frac{TCA_{j,t}}{ASSET_{j,t-1}} = \gamma_1 \frac{1}{ASSET_{j,t-1}} + \gamma_2 \frac{\Delta REV_{j,t}}{ASSET_{j,t-1}} + \upsilon_{j,t}$$

The parameter estimates from equation (1) to calculate normal current accruals is defined as follows:

(2)
$$NCA_{j,t} = \hat{\gamma}_1 \frac{1}{ASSET_{j,t-1}} + \hat{\gamma}_2 \frac{(\Delta REV_{j,t} - \Delta R_{j,t})}{ASSET_{j,t-1}}$$

Then, the abnormal current accruals are defined as the residuals from estimating equation

(3)
$$ACA_{j,t} = \frac{TCA_{j,t}}{ASSET_{j,t-1}} - NCA_{j,t}$$

The absolute value of discretionary or abnormal current accruals from equation (1) is our measure for earnings management.

Board independence is being calculated by the ratio of independent directors to the total number of directors in the board. Firm size (SIZE) has been suggested and empirically found to be the strongest explanatory variable (Simunic, 1980; Francis, 1984; Cobbin, 2002). We calculate firm size by natural logarithm of total sales. Type of auditor has been suggested to proxy audit quality (DeAngelo, 1981b; Francis, 1984) and we measure type of auditor by the dummy variable that is equal to 1 if audit organization audits the firms and 0 otherwise. Listing AGE is calculated by the number of fiscal years from the initial listing. Remarks refer to the number of qualifications in the audit report. Leverage is being calculated by dividing book value of long term debt to total equity. Current ratio (CUR) is calculated by dividing current assets to total equity. Loss is a dummy variable that is equal to 1 if a firm had loss in prior fiscal year, otherwise 0. Return on assets (ROA) is calculated by dividing profit before interest and tax to total assets. To test the hypothesis, we estimated a linear regression model, using the ordinary least squares (OLS) technique. The regression model of the study is:

$$AF = \beta_0 + \beta_1 ADA_j + \beta_2 BoDIND_j + \beta_3 SIZE_j + \beta_4 AUD_j + \beta_5 ListAGE_j + \beta_6 REM_j + \beta_7 LEV_j + \beta_8 CUR_j + \beta_9 LOSS_j + \beta_{10} ROA_j + u_j$$

(4)

The next section, presents the analysis results.

Data Analysis

First hypothesis explains there is a meaningful relationship between earnings management and audit fees. As the result in table 5, H hypothesis is rejected by the 0.95 meaningful level (α >p-value, 0.05>0.00). On the other hand, there is a meaningful relationship

between earnings management and audit fees. Also, there is a straight relationship between earnings management and audit fees coefficient. Beta unstandardized coefficient is 0.007 and shows that 0.007 of change in audit fees deviation is explained by change in earnings management.

Second hypothesis explains there is а meaningful relationship between board independence and audit fees. As the result in table 5, H hypothesis is rejected by the 0.95 meaningful level ($\alpha > p$ -value, 0.05>0.00). On the other hand, there is a meaningful relationship between board independence and audit fees. Also, there is a reverse relationship between board independence and audit fees coefficient. Beta unstandardized coefficient is -0.441 and shows that 0.441 of change in audit fees deviation is explained by change in board independence.

Final hypothesis explains there is a meaningful difference between audit fees in different firms concerning the level of firms profitability. As the result in table 6, the leven statistic shows that the meaningful level is 0.062, so the variances are homogeneous. Also, the comparison of audit fees between groups and within groups in table 6 indicates that H hypothesis is rejected by the 0.95 meaningful level ($\alpha > p$ -value, 0.05>0.00). On the other hand, there is a meaningful difference between audit fees in different firms concerning the level of profitability.

Insert table 1

Table 1 shows the results of stepwise static hypothesis test. The best regression model and independent variable that use in regression model can be determined by this test. The results show that five variables- company size, type of auditor, earnings management, board independence and Listing age- are effective factors on audit fees that can enter to the model.

Insert table 2

The results in table 2 explain the cause of expel the remark, leverage, current ratio, return on assets and loss variables. In Remarks case with due attention to the "t" parameter 0.671 and significant level of 0.503, the beta coefficient for this variable is not meaningful. Thus, it removes from the model.

Table 3 shows the correlation after removing the variables that has increased. R Square is 0.323 and shows that 0.323 of change in audit fees, is explained by change in independent variables (earnings management and board independence). Durbin Watson parameter is 1.753 which shows the model works better with five remaining variables.

The results of table 4 are about the test of meaningfulness of all independent variable coefficients. Results show that variable coefficients are meaningful on the level of confidence 0.99, before and after removing variables.

Table 5 shows the results of regression model. The following table shows the final model. Due to the above results, the final regression equation is:

(5)

Table 6 shows descriptive statistics. The results show audit fee in the low profitability level is 5.31 and in the up profitability level is 5.87. Therefore, audit fees in the up profitability level are higher than the other level.

Table 7 shows homogeneity of variances. The results of the levene statistics indicate that the significant level is .062, so it means that the group variances are homogeneous.

Table 8 shows meaningfulness of audit fees between groups and within groups. The results show that audit fees are meaningful at the 0.99 level. Therefore, there is a significant difference between audit fees in different firms.

Table 9 reports multiple comparisons of the audit fees in different profitability levels. It

shows that the mean difference is significant in different levels. The results suggest that in the up profitability level the mean difference of the audit fees is significantly higher than the other levels.

Figure 1 shows the mean of audit fees in the different levels of profitability. The results show that the mean of audit fees in higher profitability firms is higher than other firms.

Conclusion

This study investigated the relationship earnings management, board between independence and audit fees considering the firm s profitability level. Company size, type of auditor, listing age, remark, leverage, current ratio, loss and return on assets are the control variables. Results of the study explain that there is a positive and meaningful relationship between earnings management and audit fees. Discretionary accruals play an important role in earnings management. Discretionary accruals related are to accounting estimates that have high inherent risk. As such, the price of auditing increases. Therefore. high earnings management increases the price of audit fees. The results are in accordance with the study of Alali (2011). Also, there is a negative and relationship between meaningful board independence and audit fees. Independent corporate boards provide an effective monitoring mechanism that reduces control risk and scope of audit work. The results suggest that board independence decreases audit fees through a reduction in the price of audit risk. The results are in accordance with the study of Tsui et al. (2001) and Griffin et al. (2007). The results show that there is a meaningful difference between audit fees with respect to the firm s profitability level. It means that highly profitable firms pay higher audit fees. Therefore, the higher level of profitability, the higher the audit fees.

Due to the results, the determination of audit fees is very important for auditors and managers; because managers have incentives to manipulate earnings. With regard to corporate characteristics, auditors can price their fees in better manner.

Table-1. Variables Entered		
Model	Variables Entered	Method
1	SIZE	Stepwise
2	AUD	Stepwise
3	ACA	Stepwise
4	BODIND	Stepwise
5	LISTAGE	Stepwise

Table-1:Variables Entered^a

a. Dependent Variable: AF

Table-2:Excluded Variables^b

	Model	Beta In	t	Sig.	Partial	Collinearity Statistics		atistics
					Correlatio	Tolerance	VIF	Minimum
					n			Tolerance
4	REM	0.029 ^a	0.671	0.503	0.034	0.914	1.094	0.791
	LEV	-0.046 ^a	-1.092	0.275	-0.055	0.985	1.015	0.792
	CUR	0.028 ^a	0.644	0.520	0.032	0.895	1.118	0.787
	ROA	-0.035 ^a	-0.801	0.424	-0.040	0.912	1.096	0.757
	LOSS	0.022 ^a	0.502	0.616	0.025	0.883	1.132	0.771

a. Predictors in the model: (Constant), SIZE, AUD, ACA, BODIND, LISTAGE

b. Dependent Variable: AF

Table-3: Model Summery^b

Model	R	R Square	Adjusted R	Std. Error of the	Durbin-
			Square	Estimate	Watson
4	0.568^{a}	0.323	0.314	0.553	1.753

a. Predictors: (Constant), SIZE, AUD, ACA, BODIND, LISTAGE

b. Dependent Variable: AF

Table-4: ANOVA^b

Model		Sum of Squares	df	Mean	F	Sig.
				Square		
4	Regression	57.425	5	11.485	37.491	0.000
	Residual	120.392	393	0.306		
	Total	177.817	398			

a. Predictors: (Constant), SIZE, AUD, ACA, BODIND, LISTAGE

b. Dependent Variable: AF

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinea Statisti	•	
	Model	В	Std. Error	Beta			Tolerance	VIF
4	(Constant)	3.473	0.333		10.430	0.000		
	SIZE	0.180	0.025	0.333	7.147	0.000	0.895	1.158
	AUD	0.347	0.059	0.255	5.831	0.000	0.903	1.107
	ACA	0.007	0.002	0.170	3.639	0.000	0.892	1.163
	BODIND	-0.441	0.140	-0.136	-3.154	0.002	0.929	1.077
	LISTAGE	0.009	0.004	0.101	2.357	0.019	0.930	1.075

Table-5:Coefficients^a

a. Dependent Variable: AF

Table-6:Descriptive statistics of audit fees

Groups	Ν	Mean	Std.	Std.Error	95% Confidence	
			Deviation		interval fo	or mean
					Lower	Upper
					bound	bound
Low profitability	100	5.31	0.5970	0.060	5.19	5.43
Middle profitability	199	5.53	0.6150	0.044	5.44	5.61
Up profitability	100	5.87	0.720	0.072	5.73	6.02
Total	399	5.56	0.668	0.033	5.49	5.62

Table-7: Test of Homogeneity of Variances

Tuble Hitcht of Holliog	tuble wrest of fields							
Leven Statistic	df1	df2	Sig.					
2.796	2	396	0.062					

Table-8:One-way ANOVA

AF	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.274	2	8.137	19.947	0.000
Within Groups	161.543	396	0.408		
Total	177.817	398			

		Mean	Std.	Sig.	95% Confidence		
		Difference (I-J)	Error		Inte	rval	
(I)TYPE	(J)TYPE				Lower	Upper	
					Bound	Bound	
Low	Low Profitability						
profitabil ity	Middle Profitability	-0.21*	0.078	0.006	-0.37	-0.06	
ny	Up Profitability	-0.56*	0.090	0.000	-0.74	-0.39	
Middle	Low Profitability	0.21*	0.078	0.006	0.06	0.37	
Profitabil ity	Middle Profitability						
ny	High Profitability	-0.35*	0.078	0.000	-0.50	-0.19	
High	Low Profitability	0.56^{*}	0.090	0.000	0.39	0.74	
Profitabil ity	Middle Profitability	0.35^{*}	0.078	0.000	0.19	0.50	
	High Profitability						

Table-9: Multiple Comparisons (Dependent Variable: AF)



^{*} The mean difference is significant at the 0.05 level

Fig. 1- Comparing audit fees between profitability groups

References

Alali, F. (2011) "Audit fees and discretionary accruals: Compensation structure effect" Managerial Auditing Journal Vol. 26, No 2, pp. 90-113.

Anderson, D., J.R. Francis and D.J. Stokes (1993) "Auditing, Directorships and Demand for Monitoring" Journal of Accounting and Public Policy Vol. 12, No. 4, pp. 353-375.

Arens, A., R.J. Elder and M. Beasley (2008) "Auditing and Assurance Services: An Integrated Approach" Pearson Prentice-Hall, Upper Saddle River, NJ.

Barber, W.R., E.H. Brooks and W.E. Ricks (1987) "An empirical investigation of the market for audit services in the public sector" Journal of Accounting Research Vol. 25, pp. 293-305.

Beasley, M.S. (1996) "An empirical analysis of the relation between the board of director composition and financial statement fraud" The Accounting Review Vol. 71, pp. 443-465.

Becker, C., M. Defond, J. Jiambalvo and K. Subramanyam (1998) "The effect of audit quality on earnings management" Contemporary Accounting Research Vol. 15, pp. 1-24.

Cohen, J.R. and D.M. Hanno (2000) "Auditors consideration of corporate governance and management control philosophy in preplanning and planning judgments" Auditing: A Journal of Practice and Theory Vol. 19, PP. 133-146.

Cobbin, P.E. (2002) "International dimensions of the audit fee determinants literature" International Journal of Auditing Vol. 6, pp. 53-77.

DeAngelo, L.E. (1981b) "Auditor size and audit quality" Journal of Accounting and Economics Vol. 3, pp. 113-127.

DeAngelo, H., L.E. DeAngelo and D.J. Skinner (1994) "Accounting choice in troubled companies" Journal of Accounting and Economics Vol. 17, pp. 113-143.

DeAngelo, L.E. (1988) "Managerial competition, information costs and corporate governance: the use of accounting performance measures in proxy contests" Journal of accounting and economics Vol. 10, pp. 3-36.

Dechow, P., R. Sloan and A.P. Sweeney (1996) "Causes and consequences of earnings manipulation: an analysis of firms subject to enforcement actions by the SEC" Contemporary Accounting Research Vol. 13, pp. 1-36.

Francis, J. (1984) "The effect of audit firm size on audit prices: a study of the Australian market" Journal of Accounting and Economics Vol. 61, pp. 133-151.

Francis, J. and D. Simon (1987) "A test of audit pricing in the small company segment of the U.S audit market" The Accounting Review Vol. 62, pp. 145-157.

Francis, J., R. LaFond, P. Olsson and K. Schipper (2002) "The market pricing of earnings quality" Working Paper, Duke University, Available on <u>www.ssrn.con</u>.

Griffin, P.A., D.H. Lont and Y. Sun (2007) "Corporate governance and audit fees: evidence of countervailing relations" Working Paper, Available on <u>www.ssrn.com</u>. **Gompers, P., J. Ishi and A. Metrick (2003)** "Corporate governance and equity prices" The Quarterly Journal of Economics Vol. 118, pp. 107-155.

Gul, F., C. Chen and J. Tsui (2003) "Discretionary accounting accruals, Managers' incentives, and audit fees" Contemporary Accounting Research Vol. 20, pp. 441-464.

Jones, J. (1991) "Earnings management during import relief investigations" Journal of Accounting Research Vol. 29, pp. 193-228.

Joshi, P.L. and H. AL-Bastaki (2000) "Determinants of Audit Fees: Evidence from the Companies Listed in Bahrain" International Journal of Auditing Vol. 4, pp. 129-138.

Leventis, S. and P.E. Dimitropoulos (2010) "Audit Pricing, quality of earning and board independence: The Cost of the Athens stock exchange" International Journal of Cardiology Vol. 26, pp. 325-332.

Magee, R.P. and M.C. Tseng (1990) "Audit pricing and independence" The Accounting Review Vol. 65, pp. 315-336.

Masulis, R., C. Wang and F. Xie (2007) "Corporate governance and acquirer returns" The Journal of Finance Vol. 65, pp. 1851-1889.

Perry, S.E. and H.W. Thomas (1994) "Earnings management preceding management buyout offers" Journal of Accounting and Economics Vol. 1, pp. 157-179.

Simon, D.T. and J.R. Francis (1988) "The effects of auditor change on audit fees: tests of price cutting and price recovery" The Accounting Review Vol. 63, pp. 255-269.

Simunic, D. (1980) "The pricing of audit services, theory and evidence" Journal of Accounting Research Vol. 12, pp. 161-190.

Tsui, J., B. Jaggi and F. Gul (2001) "CEO domination, discretionary accruals and audit fees" Journal of Accounting, Auditing and Finance Vol. 16, No. 2, pp. 189-207.

Wallace, W.A. (1989) "Are audit fees sufficiently risk adjusted?" Advances in Accounting (supplement 1), pp. 3-38.