Effects of Corporate Social Responsibility and Corporate Governance on determining Audit Fees

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Abstract

This paper checks if Corporate Social Responsibility (CSR) and Corporate Governance Index (CGI) have any impact on audit fee decision with empirical analysis. The result of regression analysis modeling with audit fee as its dependent variable shows the CSR and CGI have positive (+) coefficients while we expect their signs should be both negative (-). According to the results, the company with excellent CSR and CGI pays more audit fee, which is opposite result to logical expectation.

Based on the discussion of previous studies, we suggested the reasons of this phenomenon as followings: 1) Audit fee is determined without auditor's investigation on company's internal accounting and information systems; 2) In case of Korea, the excellent companies in CSR and CGI pay higher audit fee because of their higher financial standards, which requires more auditors' efforts for thorough audit.

Keywords: corporate social responsibility, audit fee, corporate governance index, nonfinancial information

1. Introduction

Recently, Corporate Social Responsibility (CSR) activities are regarded as an important issue. Companies take advantage of CSR to form a positive corporate image and CSR has been identified as an essential element for sustainable corporate management. It is known CSR eliminate the information asymmetry between managers and investors, and reduce agency cost by public disclosure on internal financial reporting systems and corporate risks. On the other hand, Corporate Governance Index (CGI) is another critical factor as internal control system of corporate reducing the agency cost and information asymmetry issues. Announcement of useful and reliable information to the public in a timely manner also reduces the risk of bankruptcy.

In developed countries, CSR and CGI are regarded as important reference items in audit plan including audit fee, hours, staff, scope, and schedule because they reflect corporate internal control and bankruptcy risk assessment. Korean government's audit fee liberalization in 1999 has increased market's interests on the indexes to establish proper audit fee guideline.

The purpose of this study is the audit market analysis to check CSR and CGI have a significant impact on the audit fee decision. We expect audit fee on corporate with good CSR and CGI should be lower because audit risk on those companies is low.

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Comparing other previous analyses on audit fee, we consider non-finance information such as CSR and CGI with financial data, while the previous researches mostly based on corporate's financial information only. In addition, the result of our model can be applied to practical issues to get proper audit fee for given company as customers or auditors.

2. Theoretical Background and Hypothesis

2.1. Literature Review

According to the results of foreign researches, initial audit fee is determined by taking the company's bankruptcy risk and level of internal controls & financial reporting system into consideration (Wallace 1984, Kaplan 1985). In Korean audit market, the main factor determining audit fee was company's total asset. However, market tries to take more factors into consideration after audit fee liberalization in 1999. Also Korean government provides additional regulation for initial audit fee declaring additional fees can be added to fundamental audit fee, which is mainly determined by the size of asset.

Among previous researches on Corporate Social Responsibility, we should give an attention to research of Waddock & Graves (1997). They insisted positive relationship between CSR and company's financial performance. Most companies having many activities for social responsibility have had good financial performance. However, other empirical analyses based on Korean company, Kwak & Kim (1993) and Park, *et al.*, (2001) have different conclusions. The previous research reviewing relationship between CSR and finance performance could not prove that good CSR of company affects their financial performance positively. On the other hand, later research insists that there are positive relationship between CSR activities and finance performance. Both of them used KEJI3 as index for CSR.

Besides, among previous studies on relationship between corporate governance and financial performance, result of Asare, *et al.*, (2002) is impressive. They proved corporate with weak governance empirically pays higher audit fees. According to their explanation, weak governance of company increases its audit risk. Accordingly, the auditors increase their fee to put more efforts to audit the financial data carefully.

However, the result of empirical analyses based on Korean audit market report different results. Son & Yoon (2007) reported positive relationship between corporate governance and audit fee with data from Korean audit market. Choi & Yang (2008) also reported positive relationships between corporate governance and audit fees or hours. Several researchers explained their positive relationship that companies with good CSR and strong CGI has better financial soundness, which leads higher audit fee (Kwak, Kim 1993; Son, Yoon, 2007; Choi, Yang, 2008; Bae, *et al.*, 2012).

On the contrary, the empirical analyses based on data from other countries reported negative relationships between CSR/CGI and audit fee. They interpreted good CSR or strong CGI as low audit risks, which leads lower audit fee and shorter audit hours (Waddock, Graves, 1997; Asare, *et al.*, 2002).

2.2. Hypothesis Development

Corporates with good social responsibility and strong corporate governance may have audit contracts with lower audit fee because they have lower level audit risk and auditors expect shorter audit time. We investigate empirical data to check the non-financial

³ KEJI Index – Korean Economy Justice Institute Index – provided by the Citizens' Coalition for Economic Justice

information such as CSR or CGI affects audit contracts and their relationship. With these logical assumptions and previous researches listed in above section, we develop following hypotheses.

Hypothesis 1: CSR has negative effects on audit fee as company have new audit contract.

Hypothesis 2: CGI has negative effects on audit fee as company have new audit contract.

3. Empirical analysis

3.1. Data

We use year-company data for selected firms during 2005-2009 with assessment on CSR and CGI. CSR evaluation results are provided by the Citizens' Coalition for Economic Justice, which is called as KEJI score. CGI evaluation results are provided by the Korea Corporate Governance Service. In addition, we selected companies based on following criteria.

- Issuing Financial report based on the end of December
- Not including firms in finance industry
- Including listed firms at the end of 2009 in Korean Capital Market
- Including corporates whose financial data are available on TS2000 system provided by the "Korea Listed Companies Association" during the analysis period
- Including corporates whose audit fee data are available on the DART system provided by the "Korean Financial Supervisory Service" during the analysis period

Among provided 2558 year-company samples, we finally select 2181 samples by removing year-company data included in high 5% or low 5% based on their profit and revenue ratio. Table 1 shows sample selection processes and industry distribution of selected year-company samples.

Sample selection	Industry distribution (KSIC-9)			
selection	Year- company #	Detailed manufacturing	year	Year- Company #
	2558		2005	92
Vaar aammanu data		East Broducts/bouerage/	2006	88
Year-company data		Food Products/beverage/	2007	86
during 2005 2009		manar products	2008	91
during 2005-2009		paper products	2009	94
			All	451
	-259		2005	106
		Matallia / non matalia /	2006	111
No CSP and CGI		chemical and chemical	2007	98
NO CSK and COI			2008	106
		products	2009	131
			All	552
Total sample	2299		2005	119
			2006	115
		Electricity/	2007	123
		Electronic/machinery	2008	124
			2009	132
			All	613

Table 1. data Sample Selection and Industry Distribution

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	-118	Service	2005	114
			2006	105
			2007	119
Outlier (±5%)			2008	101
			2009	126
			All	565
	2181	Total	2005	431
			2006	419
T-4-11-			2007	426
l otal sample			2008	422
			2009	483
			All	2181

3.2. Variables

Audit fee is one of the disclosure subjects and we collected related data from the electronic disclosure system provided by Financial Supervisory Service (FSS). We set the change of audit fee as the dependent variable.

We also selected CSR and CGI as independent variables to investigate the suggested hypotheses. The variables also can be regarded as proxy of the audit risk. Table 2 shows details on provided CSR and CGI. The details for each evaluation item for CSR are also provided by the Citizens' Coalition for Economic Justice, while the details for CGI are also provided by the Corporate Governance Service.

CSR		CGI		
Evaluation item	details	Evaluation item	details	
soundness	-Shareholder distribution -healthiness of invest -healthiness of capital financing	Shareholder right protection	-Corporate governance charter -ethics regulation -vote via mail	
Justice	-fairness -transparency -cooperation	Board of directors	-attendance rate -rate of outside directors -objection or amendment of outside directors -recommendation method of outside directors	
Public service	-support for underprivileged class -support for social welfare	Disclosures	-IR - disclosure records - disclosure of directors' presence and vote	
Consumer protection	-consumer right -product quality -proper advertisement	Audit committee	-organization of audit committee -protection system for whistle blowers -outside auditors	
environment protection	-environment improvement -violation or pollution records	Profit distribution	-earning rate of a share -buyback -interim dividend -payout ratio	
Employee	-industrial disaster -investment on HR -salary/welfare -gender equal employment			
Economic development	-R&D contribution -economic contribution			

Table 2. Details on CSR/CGI Evaluation

In addition to CRS and CGI, other effecting factors on audit fee suggested in previous researches are included as control variables in our regression model. Most previous researches identify company size as another effecting factor on audit fee, because auditor provides more audit services as company size increased and operational revenue complicated.

Therefore, total assets related factors such as the rate of change in assets (Δ ASST), the rate of change in inventories (Δ INV), and the rate of change in account receivables (Δ REC) are included in regression model as control variables. The rate of change in profit margin change (Δ ROA) and debt-to-equity ratio (Δ DEBT), measurements for the financial soundness of the company, are also included as control variables. Most of control variables are measured as the rate of change to correspond to the dependent variable, which is measured as the rate of change. Besides, we included industry dummy and year dummy as control variables to check if the variables' effects on audit fee may different according to time or industry.

3.3. Regression Model

Equation (1) and Equation (2) are the regression model includes suggested independent variables and control variables to verify hypothesis 1 & 2. From the equation (1) and equation (2), we expect a negative coefficient for CSR and CGI if related hypotheses are right.

 $\Delta AFEE_{it} = \beta_0 + \beta_1 * ADCH_{it} + \beta_2 * ADCH_{it} * CSR_i + \beta_3 * \Delta ASST_{it}$

 $+\beta_4 * \Delta REC_{it} + \beta_5 * \Delta INV_{it} + \beta_6 * \Delta ROA_{it} + \beta_7 * \Delta DEBT_{it} + \Sigma ID + \Sigma YR + \varepsilon_{it}(1)$

Cf) ΔAFEEit : company I's audit fee change rate in time t
ADCHit : company I's auditor change dummy in time t (1 if auditor changes, otherwise 0)
CSRi: company I's corporate social responsibility index
ΔASSTit: company I's asset change rate in time t
ΔRECit: company I's account receivable change rate in time t
ΔINVit: company I's inventory change rate in time t
ΔROAit: company I's return on asset change rate in time t
ΔDEBTit: company I's debt change rate in time t
ΣID : dummy variable for industry
ΣYR : dummy variable for year
eit : error

 $\Delta AFEE_{it} = \beta_0 + \beta_1 * ADCH_{it} + \beta_2 * ADCH_{it} * CGI_i + \beta_3 * \Delta ASST_{it}$

 $+\beta_4 * \Delta REC_{it} + \beta_5 * \Delta INV_{it} + \beta_6 * \Delta ROA_{it} + \beta_7 * \Delta DEBT_{it} + \Sigma ID + \Sigma YR + \varepsilon_{it}(2)$

Cf) CGIit : Company I's corporate governance index

3.4. Statistics

The statistics of variables used in equation (1) and (2) are presented in Table 3.

Variable	Average	SD	Min	Max
ΔAFEE	0.639	0.968	0.001	10.014
CSR	21.493	29.965	0.000	74.350
CGI	41.589	11.809	20	100
ΔASST	0.006	0.056	-0.001	2.114
ΔREC	0.110	0.413	-1.964	7.750
ΔΙΝΥ	0.647	0.251	-9.135	11.170
ΔROA	0.479	0.223	-13.838	10.581
ΔDEBT	16.285	23.903	-1.218	9.792

Table 3. Distribution of Variables

3.5. Regression Results

Before regression with data, we verify the independent of variables with Pearson correlation coefficients, displayed in Table 4. Both of CSR and CGI have positive correlation coefficients with $\Delta AFEE$. In addition, $\Delta ASST$ has significant positive correlation with $\Delta AFEE$, while $\Delta DEBT$ has a significant negative correlation with $\Delta AFEE$. It implies that audit fee increases as asset increases or debt increases. More assets means more audit work to auditors and more debt means higher audit risks to auditors.

Var.	ΔAFEE	CSR	CGI	ΔASST	ΔREC	Δινν	ΔROA	ΔDEBT
ΔAFEE	1							
CSR	.060***	1						
CGI	.180***	.195***	1					
ΔASST	.074***	017	.007	1				
ΔREC	003	023	.069***	008	1			
Δινν	009	015	.038	.020	.053	1		
ΔROA	.016	.036*	.024	004	.016	.012	1	
ΔDEBT	.007**	012	006	.010	.050	.024	014	1

Cf) * p < .10, ** p < .05, *** p < .01.

Table 5 shows the result of regression with equation (1) and (2). The regression result of equation (1) has 0.021 as adjusted R2 and 6.24 as F-value which is significant in 1% probability. Also the coefficient of CSR is significant in 1% probability, but it is positive opposite to our expectation. It is match to the result of previous research from Kwak & Kim (1993).

The regression result of equation (2) has 0.018 as adjusted R2 and 5.98 as F-value which is significant in 1% probability. Also the coefficient of CGI is significant in 1% probability, but it is positive opposite to our expectation. It is match to the result of previous research from Son & Yoon (2007) and Choi & Yang (2008), but it is contradictory to the result of previous research from Asare, *et al.*, (2002).

	Equation (1) with CSR	Equation (2) with CGI
ADCH	-0.040 (-0.80)	-0.407 (-2.38)
ADCH * CSR	0.005 (2.71***)	
ADCH * CGI		0.009 (2.24**)
ΔASST	-1.314 (-3.57***)	-1.337 (-3.63***)
ΔREC	-0.016 (-0.33)	-0.024 (-0.49)
ΔΙΝΥ	0.008 (0.42)	0.010 (0.50)
ΔROA	0.006 (0.50)	0.007 (0.55)
ΔDEBT	-0.022 (-0.45)	-0.021 (-0.43)
ID	Included	Included
YR	Included	Included
F value	6.24***	5.98****
Adj R ²	0.021	0.018

Table 5. Regression Results with Expression (1) & (2)

Cf) t-value in ()

N=2,181; * p < .10, ** p < .05, *** p < .01.

The result of regression described in Table 5 shows that CSR and CGI has significant positive effect on audit fee in Korean audit market. It accords to previous researches based on Korean company data. Based on this result, we assume that initial audit fee discount is not applied to Korean companies with good CSR and strong CGI.

4. Discussions

We verified hypothesis that good index of corporate on CSR and CGI lead lower audit fee. Theoretically, good corporate social responsibility and high corporate governance score reduce the company's audit risk and the auditor needs relatively little effort for them.

However, analysis results demonstrate significantly positive relationships between audit fees and the non-financial information such as CSR or CGI. It is contradictory to theoretical conclusions. In Korean audit market, the better company pays more audit fee.

We assume the reason of this phenomenon as follows. 1) audit contract is made without auditor's pre-investigation on the company's internal accounting and information systems 2) In case of Korea, the excellent companies even pay higher audit fees because of their higher financial requirements, which lead a thorough audit.

To complement the limitations of this study, we should consider quality differences of audit conducted by Big4 accounting firms and others. Second, we should collect additional information on CSR and CGI to overcome small sample size limitations or data bias caused by the evaluating group.

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