Tone at the Top and Shifts in Earnings Management

-Evidence from Japan-

Masumi Nakashima, Ph. D.
Professor of Accountancy
Chiba University of Commerce

David A. Ziebart, Ph.D.
PriceWaterHouse Professor in Accountancy
University of Kentucky

November 10, 2014

ABSTRACT: A firm that has a greater 'positive tone at the top' may provide a better internal control system and environment. This results in higher earnings quality. In this study we provide evidence from Japan regarding whether 'tone at the top' is positively associated with earnings quality and better internal controls. Since internal controls are a responsibility of the CEO, prior research finds a significant association between the tone at the top (TATT) and internal controls (Okuda and Nakashima 2013). On the other hand, prior literature also documents that internal controls impact manager's choice of earnings management (Graham et l. 2005; Suda and Hanaeda 2008). Although prior studies find that internal controls regulation has changed financial reporting quality (Bedard 2006; Lobo and Zhou 2006, Machuga and Teitel 2008; Nakashima 2011), Nakashima (2011) documents that managers shift from accruals earnings management to real earnings management. This shift improves cash flow predictions while accruals quality remains the same. Accordingly, this study examines elements of the tone at the top and trade-off between accruals and real management. We provide evidence from Japan regarding whether tone at the top is positively significantly associated with internal controls. Second, we document that when management is focused on the quality of information for decision-making, a trade-off between accruals and real management is more likely to occur.

Keywords: tone at the top; earnings quality; corporate governance; stock-holding structure; capital composition; trade-off between accruals and real management.

1 INTRODUCTION

Tone at the top, (TATT) in the upper levels of the firm is said to be important for an effective internal controls system (Ahamed and Epps, 2011).

> Management — The chief executive officer is ultimately responsible and should assume "ownership" of the system. More than any other individual, the chief executive sets the "tone at the top" that affects integrity and ethics and other factors of a positive control environment (COSO 1992, p.6).

Tone at the top refers to the ethical atmosphere that is created in the workplace by the organization's leadership. (Association of Certified Fraud Examiners, p.1) TATT is important to firm success since it impacts the ethical model inherent in the firm's operations. Recent examples of poor TATT lead to severe problems at Enron and WorldCom in the U.S. and Kanebo and Livedoor in Japan. TATT impacts the behavior of the employees since firm subordinates mimic the behavior of the top executives.(Association of Certified Fraud Examiners, p.1)

Previous empirical studies suggest that if internal control is effective, quality of earnings improves ((Bedard 2006; Lobo and Zhou 2006, Machuga and Teitel 2008; Nakashima 2011). In this study, we provide evidence from Japan regarding whether the tone at the top is positively associated with earnings quality and effectiveness of internal controls. Since earnings quality impacts the financial statements it is also an important indicator of the overall financial reporting quality. In this study, we use accruals quality, discretionary accruals and the accuracy of cash flow predictions as surrogates for earnings quality.

Second, since 'tone at the top' is related to corporate governance, we investigate the determinants of TATT; including (1) top management's attributes, such as age or compensation, (2) corporate governance, such as stock structure and capital composition, and (3) audit quality. We further the prior research (Graham et al.2005; Suda and Hanaeda 2008; Cohen et al.2008;

Nakashima 2011) by analyzing trade-offs between accruals management and real management.

The tone at the top (TATT) is important for the establishment, implementation, and promotion of a good internal controls system. Hunton et al（2011) examine how middle managers perceive the tone at the top regarding upper management and document that the tone at the top is associated with accruals quality. Since the internal controls system is ultimately a responsibility of the CEO, there is a significant association between the tone at the top (TATT) and internal controls (Okuda and Nakashima 2013). On the other hand, prior literature documents that internal controls regulation impacts on the manager's choice of earnings management (Graham et l. 2005; Suda and Hanaeda 2008) and that internal controls regulation has changed financial reporting quality (Bedard 2006; Lobo and Zhou 2006, Machuga and Teitel 2008;Nakashima 2011). Cohen et al. (2008) and Nakashima (2011) document that in response to improvements in internal controls, a manager shifts from accruals management to real management. This shift improves cash flow prediction accuracy while accruals quality remains constant. Accordingly, this study examines the relation between tone at the top and trade-off between accruals and real management.

This study contributes to literature in the following ways. First, we find it is difficult to judge a manager's attitude and/or the actual internal control of a firm using official firm disclosures, especially when the disclosure of internal control deficiencies seems to be decreasing. However, we are able to develop an indicator of TATT using a survey instrument. By surveying management, we are able to assess management attitudes and perceptions of TATT. We also provide evidence regarding corporate governance in Japan based upon 'tone at the top'. Based upon our results, we find an association between 'tone at the top' and the effectiveness of internal controls and this suggests that auditors can use 'tone at the top' as a factor in judging their detection risk levels. In addition, Roychowdhury (2006) suggest that real management affect long-term corporate value negatively and Burnet et al. (2012) suggest that stock repurchases motivated by earnings management incentives potentially obfuscates earnings quality. This study examines not only the

association between tone at the top and earnings quality but also the association between tone at the top and earnings management. We find that there is no significant association between tone at the top and accruals quality and it is likely that we can suggest that real management potentially obscure earnings quality. In addition, real management affects long-term corporate value negatively and obfuscates earnings quality (Roychowdhury 2006; Burnet et al. 2012). This study examines not only the association between tone at the top and earnings quality but also the association between tone at the top and earnings management. We find that there is no significant association between tone at the top and accruals quality and this suggests that there is a possibility for real management to potentially obscure earnings quality.

The remainder of this study proceeds as follows; Section 2 develops hypotheses; Section 3 shows the research design. Section 4 presents descriptive statistics and our results. A summary and conclusion is provided in the final section.

2 PRIOR RESEARCH AND HYPOTHESES DEVELOPMENT

2.1. The Association between Tone at the Top and Earnings Quality/Internal Controls

Prior research evidence shows that an effective internal control system is significantly associated with better earnings quality ((Bedard 2006; Lobo and Zhou 2006, Machuga and Teitel 2008; Nakashima 2011). Hunton et al (2011) conducted a survey of middle managers to ask about a senior executive's improvement of the quality of internal control, ethical decision-making, and his or her posture about achievement of performance goals. They obtain the average value of the three indices as the measure of tone at the top and provide evidence regarding a significant association between tone at the top and earnings quality. Hunton et al.(2011) suggest that upper management's attitude toward establishing and maintaining a strong internal control environment is of importance for financial reporting reliability.

If tone at the top in the upper level of firm management, an ethical atmosphere will permeate the organization as a whole and the internal controls system will be enhanced. If the internal controls system is good, segregation duties will be the norm, earnings management is controlled, and it can be expected that earnings quality improves. Accordingly, we employ the following hypotheses:

H1 (1): There is a significant association between tone at the top and earnings quality.

H1 (2): There is a significant association between tone at the top and internal controls.

2.2. Determinants of Tone at the Top

Do the characteristics of management such as the age of key executives, management compensation, and the managers' holding of corporate shares relate to TATT? Does outside monitoring (via outside directors or a financial institution) impact the 'tone at the top'?

H2: There exist determinants of tone at the top.

Hutton et al. (2011) suggest that tone at the top is positively associated with older CEO age, and lower CEO compensation. Huang et al. (2012) find the relationship between CEO's age and higher quality financial reporting manifested in evidence regarding firms meeting or beating the analyst earnings forecast and the occurrence of financial restatement. Karcher 1996, Deshpande (1997), and Hunt and Jennings (1997) provide evidence that the CEO's age is positively related to ethical decision making. Accordingly, we explore the following hypothesis:

H2 (1): A firm with 'older' managers will have a more positive 'tone at the top'.

On the compensation dimension, we investigate the following hypothesis:

H2 (2): A firm with managers with high compensation will have a more positive 'tone at the

top'.

Xie et al. (2003) found that earnings management is less likely to occur when the corporate board includes more independent outside directors. In addition, management holding higher levels of shares is associated with higher earnings quality and a greater level of earnings informativeness (Kimura 2006; Shuto 2006). Accordingly, we investigate the following hypothesis:

H2(3): In firms with a higher percentage of outside directors, larger share holdings by management, or a higher percentage of a foreign investors, the influential voice of an outside director or a foreign investor improves corporate governance, and tone at the top becomes positive.

We also hypothesize that firms with a higher degree of bank monitoring will have better corporate governance and a higher 'tone at the top'.

H2 (4): The firms with high the debt-to-equity ratio from a main financing bank tends to take action, and the tone at the top becomes positive.

Higher audit quality improves corporate governance and pushes the 'tone at the top' to be more.

H2 (5): The higher audit quality the firms have, the more positive the tone at the top become.

Prior survey research (Graham et al 2005; Suda and Hanaeda 2008) and some prior empirical studies (Cohen et al. 2008; Nakashima 2011)[11] provide results that the regulation of internal control reporting may shift from accounting earnings management to real management. Burnett et al. (2012) suggest that firms with high audit quality are more likely to use accretive stock

[1] Cohen et al. (2008) suggest that public firms switched accounting earnings management to real transaction earnings management. Also, Nakashima (2011) suggests that SEC-standard Japanese public firms change accounting management to real management in the post-SOX period as well as the public firms in the U.S. Thus, the investigation by external auditors and regulatory agencies, combined with the threat of penalty and improvements in internal controls pushed public firms to restrain their accounting earnings management. Nakashima (2012) suggests that the public firms in Japan which disclosed material weaknesses engaged in more accounting management. Pan (2009) finds that Japanese firms engage in earnings management through the manipulation of real activities by employing a sample of 650 firms which report a small positive profit.

repurchase which is a form of real management and less likely to use accrual management to meet or beat consensus analyst' forecasts. Assuming there is a trade-off between accruals management and real management, a link should exist between ‘tone at the top’ and the trade-off between accruals and real management.

H3: The trade-off between accruals management and real management is related to tone at the top.

We predict that firms which have a positive attitude toward internal controls do not trade-off between accurals management and real earnings management and decrease both types of earnings management. Thus, the following working hypothesis is set up.

Working hypothesis 3 (a): The trade-off between accruals management and real management is associated with a more positive attitude towards internal control improvement among the tone at the top.

Since corporate governance does not work well for firms whose managers have lower objectivity in their decision processes, we predict that the firms are likely to trade-off between accruals and real earnings management. Thus, we investigate following hypothesis.

Working hypothesis 3 (b): The trade-off between accruals management and real management is associated with objective decision-making in the tone at the top.

A manager who is aggressive with regard to meeting or exceeding targets, such as sales, net income and/or earnings per share is likely to have greater incentives for earnings management. However, since accounting earnings management is controlled via a strong internal control environment, the manager is likely shift from accounting earnings management to real earnings management.

Working hypothesis 3 (c): The trade-off between accruals management and real earnings management is associated with aggressive attitudes towards meeting earnings targets.

In Figure 1, we provide a summary of our propositions and hypotheses.

3 SURVEY EVIDENCE AND SAMPLE SELECTION

3.1. The Survey Evidence

Nakashima and Okuda (2013) surveyed public firms in Japan in order to investigate their attitudes regarding internal controls and accounting information system in September, 2012[3]. A questionnaire was sent to the presidents of 3,605 public firms in Japan (First and Second Section of Tokyo Stock Exchange and Mothers of Tokyo Stock Exchange, First and Second Section of Osaka Stock Exchange and Heracles of Osaka Stock Exchange, First and Second Section of Nagoya Stock Exchange, Fukuoka Stock Exchange, Sapporo Stock Exchange). Two hundred twelve firms responded to the survey, for a response rate of 5.88.0%. The industrial distribution based on *Nikkei's Intermediate Classification* for public firms in Japan is presented in Figure 1.

Figure 1 presents the breakdown by the different stock markets for the responses to the questionnaire request. Figure 2 shows that more than 75% of the listed firms in Japan belong to the Tokyo stock market and it seems it seems that firms listed on Tokyo Stock Exchange have a more positive attitude regarding internal control (compared with firms on the other markets in Japan).

[Insert Figure 1 Here]

[Insert Figure 2 Here]

We used the following process for sample selection to analyze the firm characteristics of firms reporting a material weakness. We identified 9 firms which are financial institutions, and 76 firms with missing Nikkei Data and 43 firms whose fiscal year ended in other than March and did not have complete data from 2002 through 2012, and 2 firms without OCF data. Data was obtained

[3] This study focuses on the following questions in the survey instrument; (1) managers' attitudes which covers sub-question 1 improving internal controls, 2.objective decision-making, 3.aggresive operating style; (2) quality of external auditors' auditing(See Appendix).

from the Nikkei Economic Electronic Databank System (NEEDS). Finally, we identified 82 firms whose fiscal year ended in March. The process of sample selection is shown in the Table 1.

[Insert Table 1 Here]

4 RESEARCH DISIGN

4.1. Proxy of Tone at the Top

COSO (1994, p.4) asserts the following:

> Internal control consists of five interrelated components. As one of the components, the control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors.

In the survey we asked the president's office about management's attitude toward internal controls, objective decisions, and aggressive operating style by employing the following questions.

(1) How would you describe the attitude of the CEO in your company with regard to documenting and assessing the effectiveness of the internal control structure and procedures over financial reporting?

(1.1) Complying with the requirements of J-SOX, and

(1.2) Improving internal controls in the company.

(2) If independent and objective third-parties were to judge the ethics of business decisions made by the CEO at your company, what do you think they would say?

(3) How aggressive is the CEO with regard to meeting or exceeding targets, such as sales, net income and/or earnings per share?

Respondents were asked to respond using a seven point scale for each of these questions (see APPENDIX). With regard to Q1.1, the conformity to J-SOX, Q1.2, improvements in internal

control, and Q1.3, the importance of targets, more than half of the respondent firms answered greater than six on the seven point scale. This result suggests that many firms evaluate their internal control positive and have a positive attitude toward target setting. However, with regards to question 1.3 the objectivity of decision-making, few respondents provided a seven. This suggests that they evaluate management's decision making to be less objective.

[Insert Figure 3 Here]

4.2. Effectiveness of Internal Controls

With the question 2.2, the function considered to become effective in improvement of internal control or governance for each firm by conforming to the J-SOX is asked. Figure 3 show the result of the internal controls. As an effective function, more than half of respondent reply the expectation for the reliability of the financial reporting of a question 2.2.4 as more than scale six, and it can be said that the original purpose of the J-SOX is understood among the firms. While six or more replies of the expectation for compliance became forty percentage or more, as for the expectation for promotion of property preservation, the replies 4 and 5 became 28% and 30%, respectively. There are over forty percentage of corporate governance of a question 2.2.1 and protection of the assets of a question 2.2.5 replies a scale five or more, it turns out that there are many firms consider J-SOX positive since J-SOX is effective for internal controls and governance enforcement.

[Insert Figure 4 Here]

4.3. Audit Quality

In archival studies, a dummy variable for audit firm size is often employed as a proxy for audit quality. In the survey, we asked about the quality of the financial statement audit and more

than half of the firms answered a five or more. This suggests that Japanese firms consider their audits to be of high quality.

[Insert Figure 5 Here]

4.4. Earnings Quality Proxy

Earnings management which falls within GAAP can be focused on three types of earnings management; conservative accounting, neutral accounting, and aggressive accounting (Dechow and Skinner 2000)[4]. Managers can use their discretion not only in order to misstate their firms' performance for opportunistic purposes, but also to convey their inside information for imformative purposes (Watt and Zimmaerman, 1986; Subramanyam 1996; Suda 2000; Leuz et al. 2003, p.510). This study uses discretionary accruals estimated by the Jones (1991) model each year cross-sectionaly for all sample firms, using the following regression model.

$$\Delta WC_t=\beta_0+\beta_1\Delta SALES_t+\beta_2 PPE_t+\varepsilon_t$$

Managers can take real actions that affect cash flows by delaying or accelerating sales and accelerating or postponing R&D or advertising expenses (Dechow and Skinner 2000). We follow previous studies for methods to identify real earnings management. However, it is difficult to document the extent to which managers engage in real management to manipulate earnings. Merely observing that a firm enters into a transaction that receives favorable accounting treatment is not evidence that the firm entered into the transaction just because of its accounting consequence (Dechow and Schrand 2004).

Graham et al. (2005) and Suda and Hanaeda (2007) find strong evidence that managers take

4 According to Dechow and Skinner (2000), conservative accounting includes overly aggressive recognition of a provision or reserve, overvaluation of acquired in-process R&D in purchase acquisitions, overstatement of restructuring charges and asset write-offs for accruals management, and delaying sales, accelerating R&D or advertising expenditure for real management. Neutral accounting includes earnings that result from a neutral operation of the process, such as income smoothing accounting (Suda 2007). Aggressive accounting includes the understatement of the provisions for bad debts and drawing down provisions or reserves in an overly aggressive manner for accruals management, and postponing R&D or advertising expenditures and accelerating sales for real management.

real earnings management such as “decrease discretionary spending on R&D, advertising, and maintenance” to meet an earnings target much more than accounting accruals earnings management such as “book revenue now rather than next quarter” and “alter accounting assumptions.” Thus, following Roychowdhury (2006) and Cohen et al.(2008), this study focuses on production manipulation. Production costs manipulation includes reporting lower COGS by reducing production costs per unit by an increase in production. We estimate one proxy, abnormal production costs (abnPROD).

We compute abnormal production costs by subtracting the normal level of the sum of COGS and change in inventory from actual production costs. We estimate the normal level of production costs as the following equation.

$$PROD_t = COG_t + \Delta INV_t$$
$$= \alpha_0 + \alpha_1 SALES_t + \alpha_2 \Delta SALES_t + \alpha_3 \Delta SALES_{t-1} + \varepsilon_t$$

4.5. Test Hypothesis

In order to test H1, we estimate the following regression equation and examine the association between the tone at the top and earnings quality/internal control.

H1(1) $$TATT = \theta_0 + \theta_1 MGT\_AGE + \theta_2 MGT\_IR_t + \theta_3 SO_t + \theta_4 CMPS\_DAMT_t + \theta_5 FRGN_t + \theta_6 CROSS_t + \theta_7 RTO\_TBPC_t + \theta_8 RTO\_TKBKD_t + \theta_9 IDRTO_t + \theta_{10} LOSSPORTION_t + \theta_{11} ROA_t + \theta_{12} OC_t + \theta_{13} GROWTH_t + \theta_{14} FIRM\_AGE_t + \theta_{15} SEGMENT_t + \theta_{16} OCF_t + \theta_{17} DEBT_t + \theta_{18} AUDIT_t + \theta_{19} EQ_t + \varepsilon_{t+1}$$

H1(2) $$IC = \theta_0 + \theta_1 MGT\_AGE + \theta_2 MGT\_IR_t + \theta_3 SO_t + \theta_4 CMPS\_DAMT_t + \theta_5 FRGN_t + \theta_6 CROSS_t + \theta_7 RTO\_TBPC_t + \theta_8 RTO\_TKBKD_t + \theta_9 IDRTO_{t\,t} + \theta_{10} LOSSPORTION_t + \theta_{11} ROA_t + \theta_{12} OC_t + \theta_{13} GROWTH_t + \theta_{14} FIRM\_AGE_t + \theta_{15} SEGMENT_t + \theta_{16} OCF_t + \theta_{17} DEBT_t + \theta_{18} AUDIT_t + \theta_{19} TATT_t + \varepsilon_{t+1}$$

TATT	A composite of three respondent regarding (1) management's attitude toward internal controls, (2) objective decision, and (3) aggressive operating style.
MGT_AGE	The average age of management
MGT_IR	Rate of management's sharing
SO	If the firm has stock-option system, 1, if the firm has no stock-option system, 0.
CMPS_DAMT	Total of compensation which management received including bonus.
FRGN	Rate of foreign investors sharing
CROSS	Rate of cross sharing among public firms which can have cross-sharing.
RTO_TPBK	Rate of main bank sharing
RTO_TKBKD	Rate of depending on main bank=borrowings from main bank/total borrowing*100
IDRTO	Rate of independent outside directors=outside directors/total directors*100
LOSSPORTION	The number of years which have decrease earnings during total years
ROA	Return on assets: Net income/Average assets
OC	OPERATING CYCLE=The log of the average of[(sales/360)/(Average Accounts Receivable)+(Cost of Goods Sold/360)Average Inventory)] .
GROWTH	Growth rate in sales: Sales in the beginning of the year / Sales in the end of the year
FIRM_AGE	The years when the firm passed since the firm was established
SEGMENT	Number of reported business segments
OCF	OCF (cash flows from operations) minus mean of OCF
DEBT	LDEBT (=long-term debt /average assets) minus mean of LDEBT
AUDIT	Respondent of management perception for financial statement auditing quality

To test H2, we estimate the following regression equation. We include a number of control variables.

H2 $$TATT= \theta_0+\theta_1 MGT\_AGE + \theta_2 MGT\_IR_t+\theta_3 SO_t +\theta_4 CMPS\_DAMT_t +\theta_5 FRGN_t+\theta_6 CROSS_t+\theta_7 RTO\_TBPC_t+\theta_8 RTO\_TKBKD_t+\theta_9 IDRTO_t +\theta_{10} LOSSPORTION_t +\theta_{11} ROA_t+\theta_{12} OC_t+\theta_{13} GROWTH_t+\theta_{14} FIRM\_AGE_t +\theta_{15} SEGMENT_t+\theta_{16} OCF_t+\theta_{17} DEBT_t+\theta_{18} AUDIT_t+\varepsilon_{t+1}$$

To test H3, a dummy variable coded 1 if DA increases and PROD is decreasing, 1 , is included along with dummy variables for (1) attitude towards internal control improvement/maintenance, (2) the objectivity of managerial decision-making, and (3) manager's aggressiveness for meeting or beating targets.

H3 $$TATT= \theta_0+\theta_1 MGT\_AGE + \theta_2 MGT\_IRt+\theta_3 SOt +\theta_4 CMPS\_DAMTt +\theta_5 FRGN_t+\theta_6 CROSS_t+\theta_7 RTO\_TBPC_t+\theta_8 RTO\_TKBKD_t+\theta_9 IDRTO_t$$

$$+\theta_{10}LOSSPORTION_t +\theta_{11}ROA_t+\theta_{12}OC_t+\theta_{13}GROWTH_t+\theta_{14}FIRM\_AGE_t$$
$$+\theta_{15}SEGMENT_t+\theta_{16}OCF_t+\theta_{17}DEBT_t+\theta_{18}AUDIT_t +\theta_{19}DAPRODt+\varepsilon t+1$$

5 EMPRICAL RESULTS

5.1. Descriptive Statistics

Table 2 provides descriptive statistics of our variables. The descriptive statistics indicate that the mean (standard deviation) of TATT is 5.605 (0.888) and this is lower than the TATT reported by Hunton et al. (2011). The mean (standard deviation) of the age of the senior manager is 59.1 years old (3.290), and the mean (standard deviation) of the management's ratio of shareholding is 2.880 (5.041) and value of the management shareholding is 242,146 million yen (183,555) respectively. The mean corporate governance index is 10.521 (9.841), while the mean foreign stock holding ratio is 9.638 (9.232). The mean cross holding ratio is 2.464 (1.798) while the mean bank financing ratio is 20.827 (21.793). The mean main financing bank debt-to-equity ratio is 9.044 (11.870).

[Insert Table 2 Here]

5.2. Empirical Results 1-H1: The Association between Tone at the Top and Earnings Quality

Table 3 shows the correlation coefficient between the question response result of TATT, the effectiveness of internal control, and the audit quality, and the trade-off between earnings management. With regard to the correlation coefficient of TATT and internal control, the Pearson correlation (Spearman correlation) of TATT and creditability of financial reporting and the Pearson coefficient (spare man coefficient) of TATT and enforcement of compliance are 0.563 (0.552) and 0.613, respectively (0.633), and it has positive correlation

[Insert Table 3 Here]

Table 4 shows the regression analysis result of using the effectiveness of internal control as the dependent variable. Our results indicate that TATT is significantly associated with effectiveness of operation, efficiency of operation, enforcement of law compliance, and promotion of property preservation. This means that TATT is significantly positively associated with the effectiveness of internal controls.

[Insert Table 4 Here]

Our results in Table 5 indicate mixed evidence of a link between 'tone at the top' and accruals quality, discretionary accruals (DA), abnormal OCF/PROD, and the accuracy of cash flow predictions. We observe a statistically significant relation between our measure of cash flow prediction accuracy and TATT.[9] This suggests that 'tone at the top' is significantly associated with accuracy of cash flow predictions and this supports H1(1).

5.3. Empirical Results 1-H2: Determinants of Tone at the Top

Table 7 provides our results where attributes of management and corporate governance are the dependent variables in the regression analysis. Table 7 results indicate a positive link between 'tone at the top' and age of management, outside directors ratio, foreign investors ratio, and audit quality. The results also indicate a negative relation between 'tone at the top' and the loss indicator.

[Insert Table 7 Here]

The tone at the top is significantly associated with the management's age and compensation. And tone at the top is also significantly associated with cross sharing and audit quality. These results are consistent with results reported by Hunton (2011).

[9] In this study, accruals quality and accuracy of cash flow prediction are errors. Accordingly, a smaller error is indicative of higher quality earnings and/or accruals.

Hofsted (2001) suggests that there is a positive link between power distance in the country and stronger decision making. The indices (ranks) of Japan and the U.S. on power distance are 54(33), 40 (38) respectively. This may assist in explaining the link between management age, decision strength, and a more positive 'tone at the top' (which supports H2).

Also, tone at the top is associated with cross sharing, and this suggests that management has a positive attitude toward internal control through monitoring mutually by cross sharing firms. We provide a scatter diagram based on the corporate governance index and the Japanese traditional management index of our sample in Figure 4. It seems that the more Japanese traditional firms have a tendency for having a stronger corporate governance index.

[Insert Figure 4 Here]

5. 4. Empirical Results 3-H3: The Tone at the Top and Trade-offs in Earnings Management

Our evidence and prior work suggests that the implementation of internal control reporting regulation resulted in changes in manager's earnings management. Figure 5 shows the time-series plots of accounting accrual earnings management and real earnings management. We can observe that while discretionary accruals (DA) decreased, abnormal production cost (abnPROD) increased. Suppose that the trade-off between accruals and real earnings management, we should verify which factor of tone at the top is associate with the trade-off between accruals and real management.

[Insert Figure 5 Here] -

We test H3 – 'the relation between 'tone at the top and the trade-off between accruals management and real management using a regression approach where the dependent variables are from the questionnaire data. Table 8 reports that the results from our regression with the mean of Q1-1-1 and Q1-1-2 and Q1-2 and Q1-3 as the dependent variable. Table 8 reports that Q1-2 is significantly associated with the trade-off between DA and PROD. This indicates that when management is less objective decisions oriented, there is a trade-off between accounting earnings

management and real management. Also, Table 4 shows the Pearson correlation (Spearman correlation) between Q2.2 and objectivity of management's decision is -0.219 (-0.188). This negative correlation supports H3.

[Insert Table 8 Here]

6 CONCLUSION AND FUTURE RESEARCH

We investigate whether 'tone at the top' is associated with earnings quality and the effectiveness of internal controls. We find the following: First, the tone at the top is significantly positive associated with internal controls effectiveness, especially, effectiveness of operations, efficiency of operation, strengthening of legal compliance, and preservation of assets. This is not unexpected since the tone at the top is related to the effectiveness of the internal controls system. Second, we find that less objective management decision-making is associated with a trade- off between accounting accruals earnings management and real earnings management.

Further research is needed to validate the survey results on which we conduct our analyses. We also believe that our results should be replicated across other time periods and sample in order to better understand the generalizability of our results.

REFERENCES

Ahamed, M. and D. Epps. 2011. The tone at the top: ten ways to measure effectiveness, Deloitte

Development: 1-11.

Burnett, B.M, Cripe, B.M. Martin, G.W. McAllister, B. P. 2012. Audit Quality and the Trade-Off

between Accretive Stock Repurchases and Accrual-Based Earnings Management, *The Accounting Review* 87(6): 1861-1884.

Bedard, J. 2006. Sarbanes Oxley internal control requirements and earnings quality. Working paper.

Cohen, D., A. Dey, and T. Lys. "Real and accrual-based earnings management in Cohen, D., A. Dey, and T. Lys. 2008. Real and Accrual-based earnings management in the Pre- and Post-Sarbanes Oxley period. *The Accounting Review* 83 (3) May: 757-787.

COSO. 1994. Internal Controls Integrated Framework, Executive Summary Framework Reporting to External Parties Addendum to "Reporting to External Parties."

Dechow, P.M. and I. Dichev. 2002. The quality of Accruals and Earnings: The role of accrual estimation errors, *Accounting Review* 77: 35-59.

Dechow, P.M. and C. M. Schrand. 2004. *Earnings Quality*. The Research Foundation of CFA Institute.

Deshpande, S.P. 1997. Managers' perception of proper ethical conduct; The effect of sex, age, and level of education, *Journal of Business Ethics* 16:79-85.

Francis, J., R. LaFond, P. Olsson, K. Schipper. 2008. *Earnings quality,* now Publishers, eds. 2006. *Foundations and Trends in Accounting* 1(4):259-340.

Hofstede, Geert. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*, Sage Publications.

Huang, HW. Rose-Green, E.and Lee CC. 2012 CEO age and financial reporting quality, *The Accounting Review* 26(4):725-740.

Hunt, T.G. and De.F. Jennings. 1997. Ethics and performance: A simulation analysis of team decision making, *Journal of Business Ethics* 16:195-203.

Hunton, J.E., Hoitash, R. and Thibodeau, J.C. 2011. The relationship between perceived tone at the top and earnings quality, *Contemporary Accounting Research.* 28 (4):1190–1224, Winter.

Jones, J. 1991. Earnings management during import relief investigations. *Journal*

of Accounting Research 29:193-228.

Karcher, J. N. 1996. Auditors' ability to discern the presence of ethical problems, *Journal of Business Ethics* 15:1033-1050.

Kimura, F. 2006. Corporate Governance and the Quality of Earnings, *Security Analysis Journal*, 44(5):30-41.

Krishnan, J. 2005. Audit committee quality and internal control: An empirical analysis. *The Accounting Review* 80 (2):649-675.

Lobo, G.J., and J. Zhou. 2006. Did conservatism in financial reporting increase after the

Sarbanes-Oxley Act? Initial evidence." *Accounting Horizons* 20: 57-73.

Machuga, S., and K. Tietel. 2007.The effect of the Mexican corporate governance code on quality

of earnings and its components." *Journal of International Accounting Research*, 6(1):37-55.

Lorek, K..S. and G. L. Willinger .1996. A multivariate time-series prediction model for cash-flow data. *The Accounting review* 71(1):81-101.

McNichols, M. F. 2002. Discussion of the quality of accruals and earnings: The role of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77:61-69.

Nakashima. M. 2011. *Earnings Quality* and*Corporate Governance-Theory and Empirical Research*-. Hakuto Shobo. (in Japanese).

Nakashima. M. and S.Okuda.2013. The analyses of internal controls system and accounting information from the survey evidence, *2013 the Annual Meeting of Japanese Accounting Association*. (in Japanese) in Chubu University in Nagoya.

Okuda, S., K. Suda, T. Sasaki, M.Nakashima, and R Nakamura.2009. Determinants of internal controls system and audit quality, *Kigyo-Kaikei* Chuokeizaish. (in Japanese).

Okumura, M. 2006. Discretion over reported earnings-survey of empirical studies and some issues, *Security Analysis Journal*, 44(5):7-17.

Pan, C.K. 2009. Japanese firms' real activities earnings management to avoid losses. *The Journal of Management Accounting, Japan* 17(1):3-23.

Roychowdhury, S. 2006. Earnings management though real activities manipulation. *Journal of Accounting and Economics* 42 (3):335-370.

Suda, K. 2000. *Positive Theory of Financial Accounting*. Hakuto Shobo (in Japanese)

Suda, K. and H. Hanaeda, 2008. Corporate financial reporting strategy: survey evidence from Japanease firms. *Security Analyst Research* 46(5): 51-69.

Suda, K, Y. Tatsuji, and S.Otomasa. 2007. *Accounting Manipulation,* Diamond Sha (in Japanese).

Suda, K., T. Sasaki, M. Nakashima, and S. Okuda. 2011a. Survey research regarding internal controls and auditing-Comparison between the U.S. and Japanese Firm. *Kaikei*.179 (6) 906-922.(in Japanese)

Suda, K., T. Sasaki,M. Nakashima, and S. Okuda. 2011b. Survey research regarding internal controls and auditing-Comparison between the U.S. and Japanese Firm. *Kaikei*.180 (1) 115-129.(in Japanese)

Shuto, A. 2006. Ownership Structure and the informartiveness of Earnings-Empirical Evidence from Japan, *Security Analysis Journal*, 44(5):42-56.

Zang, A.Y. 2012. Evidence on the trade-off between real activities Manipulation and accrual-based earnings management, *The Accounting Review*, 87(2):675-703

Watt, R. L. and J. L. Zimmerman.1986. *Positive Accounting Theory*. New York, NY: Prentice Hall.

White, H. 1980. A heteroskedasticity-Consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*.48 (4):817-838.

Yoshida, K. 2005. Do earnings drive firm-level stock returns in Japan? *Accounting Progress* 6:59-70.(in Japanese).

FIGURE1: Summary of Propositions

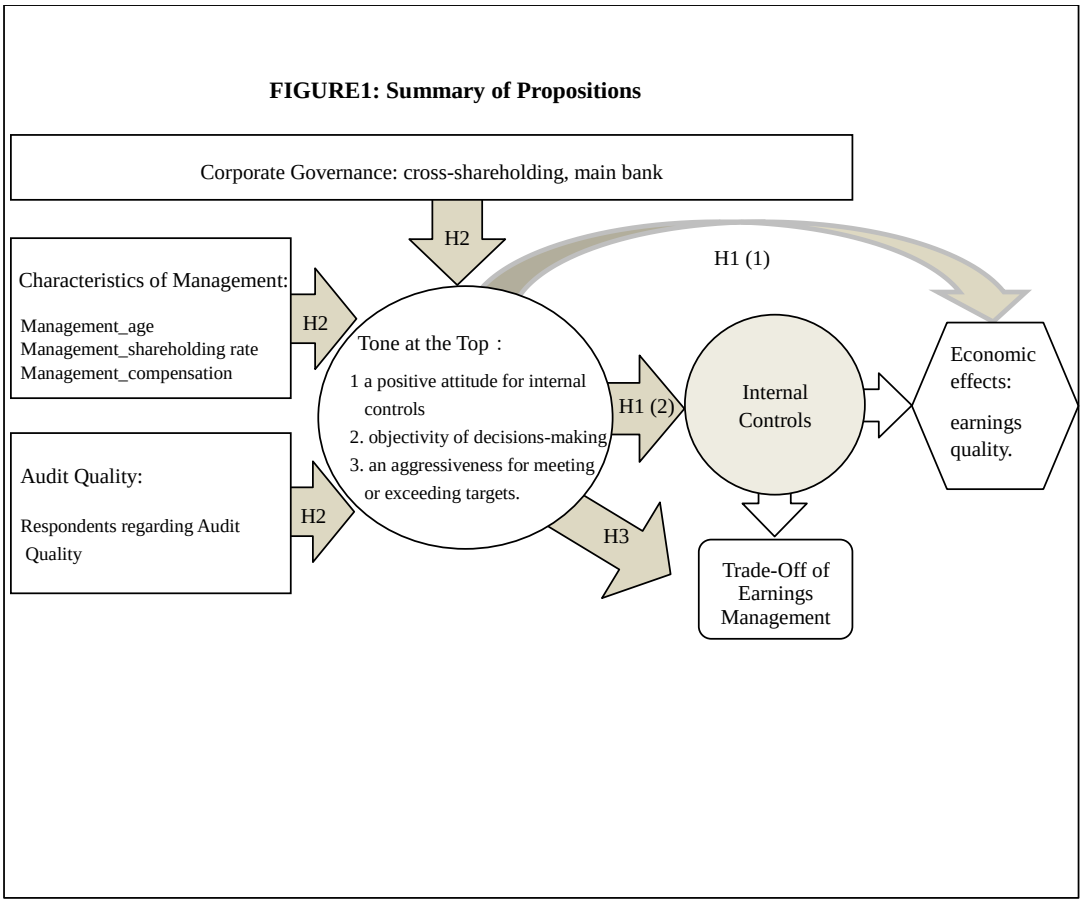


FIGURE 2: Stock Market Composition

FIGURE 3: Industry Composition

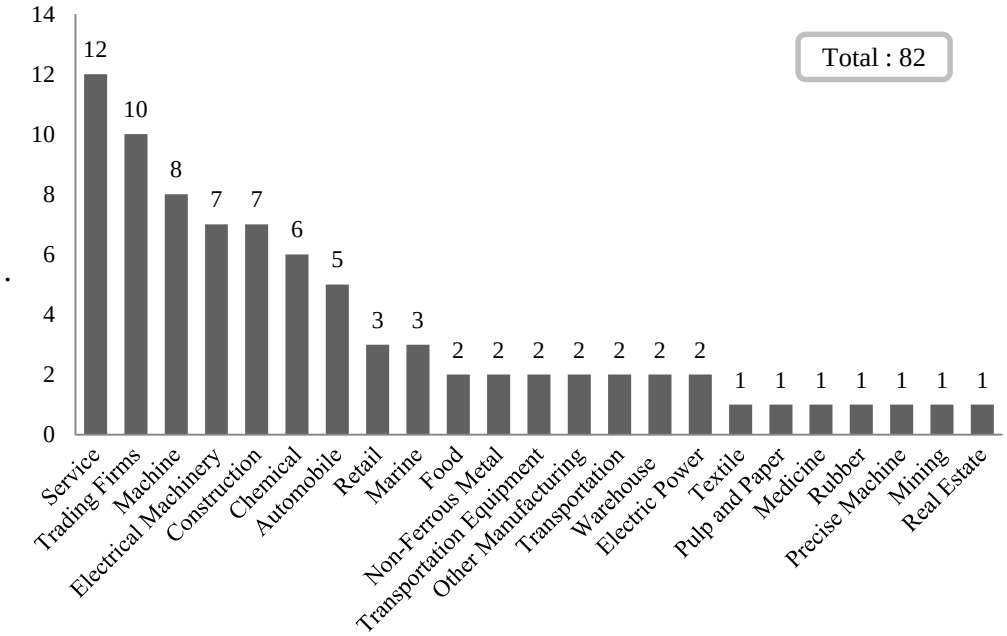


TABLE1: Sample Selection	
Net Respondents	212
Less Financial institutions	Δ 9
	203
Less firms with Nikkei data and non consolidated firms	Δ 76
Less firms with missing data and closing month other than March	Δ 43
Less firms with missing OCF data	Δ 2
Final Sample	**82**

TABLE2: Descriptive Statistics (N =82)

	MEAN	MEDIAN	S.D.	MIN	MAX	Q1	Q3	
TAT	5.605	5.667	0.888	2.833	7.000	5.167	6.333	
AQ	0.006	0.002	0.011	0.000	0.095	0.001	0.006	
DA	-0.001	-0.001	0.024	-0.084	0.135	-0.011	0.007	
abnOCF	0.005	0.001	0.030	-0.067	0.123	-0.011	0.018	
abnPROD	-0.002	-0.001	0.015	-0.044	0.047	-0.008	0.004	
MAPE	0.178	0.103	0.241	0.003	1.000	0.034	0.188	
MGT_AGE	59.159	59.000	3.290	49.000	65.000	57.750	61.000	age
MGT_IR	2.880	0.691	5.041	0.017	28.780	0.134	3.202	%
SO	0.207	0.000	0.408	0.000	1.000	0.000	0.000	
CMPS_DAMT	242.146	189.500	183.555	13.000	997.000	103.750	340.250	million yen
FRGN	10.521	7.530	9.841	0.000	33.470	0.865	18.988	%
CROSS	9.638	7.935	9.232	0.000	39.970	0.940	15.250	%
RTO_TPBK	2.464	2.800	1.798	0.000	5.030	0.000	4.003	%
RTO_TKBKD	20.827	19.440	21.793	0.000	100.000	0.000	33.597	%
IDRTO	9.044	0.000	11.870	0.000	50.000	0.000	14.286	%
LOSSPORTION	0.153	0.091	0.178	0.000	0.818	0.000	0.273	%
ROA	0.038	0.043	0.047	-0.183	0.148	0.013	0.068	
OC	3.925	3.783	0.910	0.000	7.050	3.614	4.288	
GROWTH	6.435	5.019	16.050	-40.343	67.340	-0.119	12.693	
FIRM_AGE	4.129	4.159	0.306	3.466	4.812	3.984	4.357	
SEGMENT	1.520	1.792	0.726	0.000	2.398	1.609	1.946	
OCF	0.000	0.001	0.058	-0.180	0.148	-0.029	0.038	
DEBT	0.000	-0.023	0.080	-0.075	0.282	-0.070	0.041	
AUDIT	5.280	5.000	1.125	3.000	7.000	4.000	6.000	
DA/PROD	0.280	0.000	0.452	0.000	1.000	0.000	1.000	
Q1_1mean	5.668	6.000	0.957	3.500	7.000	5.000	6.500	
Q1_2	5.146	5.000	1.167	2.000	7.000	4.000	6.000	
Q1_3	6.000	6.000	1.144	1.000	7.000	6.000	7.000	
Q2_2_1	5.927	5.000	5.577	2.000	55.000	5.000	6.000	
Q2_2_2	4.701	5.000	1.191	1.000	7.000	4.000	6.000	
Q2_2_3	4.470	4.000	1.166	1.000	7.000	4.000	5.000	
Q2_2_4	5.677	6.000	0.954	3.000	7.000	5.000	6.000	
Q2_2_5	5.451	6.000	0.958	3.000	7.000	5.000	6.000	
Q2_2_6	5.030	5.000	1.156	1.000	7.000	4.000	6.000	

Each variable is defined below.

TAT	A composite of three respondent regarding (1) management's attitude toward internal controls, (2) objective decision, and (3) aggressive operating style.
AQ	Accrual Quality =AQ, The standard deviation of the residuals from Nichols's (2002) measure,
DA	$\Delta WCt = \beta 0+\beta 1OCFt-1+\beta 2OCFt+\beta 3OCFt+1+\beta 4\Delta REVt+\beta 5PPEt+\varepsilon t$
abnOCF	Abnormal OCF, resisuals by estimated $OCFt=\alpha 0+\alpha 1Salest+\alpha 2\Delta Salest+\varepsilon t$
abnPROD	Abnormal Production Costs, resisuals by estimated COG+ΔINV=SALESt+ ΔSALES +ΔSALESt-1
MAPE	$\sum_{t=1}^{n} \frac{\lvert e_t \rvert}{\lvert Y_t \rvert}$ et = Predictive Error in t, Yt = Actual value in t
MGT_AGE	The average age of management
MGT_IR	Rate of management's sharing
SO	If the firm has stock-option system, 1, if the firm has no stock-option system, 0.
CMPS_DAMT	Total of compensation which management received including bonus.
FRGN	Rate of foreign investors sharing
CROSS	Rate of cross sharing among public firms which can have cross-sharing.
RTO_TPBK	Rate of main bank sharing
RTO_TKBKD	Rate of depending on main bank=borrowings from main bank/total borrowing*100
IDRTO	Rate of independent outside directors=outside directors/total directors*100
LOSSPORTION	The number of years which have decrease earnings during total years
ROA	Return on assets: Net income/Average assets
OC	OPERATING CYCLE=The log of the average of [(sales/360)/(Average Accounts Receivable) +(Cost of Goods Sold/360)/Average Inventory)] .
GROWTH	Growth rate in sales: Sales in the beginning of the year / Sales in the end of the year
FIRM_AGE	The years when the firm passed since the firm was established
SEGMENT	Number of reported business segments
OCF	OCF (cash flows from operations) minus mean of OCF
DEBT	LDEBT (=long-term debt /average assets) minus mean of LDEBT
AUDIT	Respondent of management perception for financial statement auditing quality
DA/PROD	If there is a trade-off between accounting management and real management, 1, if no trade-off, 0.
Q1_1mean	The mean of respondent of Q1.1.1and Q1.1.2: Top management's attitude toward J-SOX conformity and internal control improvement
Q1_2	The respondent of Q1.2: Objective decision-making of management
Q1_3	The respondent of Q1.3: Management's aggressiveness with regard to meeting or exceeding targets
Q2_2_1	The respondent of Q2.2.1: Improvement of governance
Q2_2_2	The respondent of Q2.2.2: Effectiveness of operation
Q2_2_3	The respondent of Q2.2.3:Efficiency of operation
Q2_2_4	The respondent of Q2.2.4: Creditability of financial reporting
Q2_2_5	The respondent of Q2.2.5: Enforcement of law compliance
Q2_2_6	The respondent of Q2.2.6: Promotion of asset protection

TABLE 3: Correlations for Variables Used in Test of H1(1) and H2

	TAT	AQ	DA	abnOCF	abnPROD	MAPE	MGT_AGE	MGT_IR	SO	CMPS_DAMT	FRGN	CROSS	RTO_TPBK	RTO_TKBKD	IDRTO	LOSSPORTION	ROA	OC	GROWTH	FIRM_AGE	SEGMENT	AUDIT	DA/PROD
TAT	1.000	-0.043	-0.146	-0.191*	0.093	-0.194*	0.241**	-0.109	0.025	0.336***	0.287***	0.081	-0.140	-0.097	0.196*	-0.209*	0.154	-0.022	0.035	0.125	0.016	0.600***	-0.172
	.	0.704	0.191	0.085	0.403	0.081	0.029	0.329	0.827	0.002	0.009	0.470	0.210	0.384	0.078	0.060	0.167	0.842	0.752	0.264	0.886	0.000	0.123
AQ	-0.157	1.000	0.022	0.029	0.204*	0.025	-0.199*	0.013	0.256**	-0.159	-0.152	-0.138	-0.033	-0.125	-0.144	0.323***	-0.446***	0.115	-0.218**	-0.163	0.037	0.149	-0.045
	0.159	.	0.844	0.794	0.066	0.825	0.074	0.905	0.020	0.155	0.173	0.215	0.768	0.263	0.196	0.003	0.000	0.304	0.049	0.143	0.739	0.181	0.690
DA	-0.104	-0.031	1.000	0.567***	-0.121	0.044	0.092	-0.113	0.033	-0.024	-0.037	-0.099	-0.152	0.052	0.064	0.229**	-0.136	0.004	-0.098	0.036	0.142	-0.125	-0.082
	0.352	0.784	.	0.000	0.279	0.695	0.410	0.311	0.772	0.830	0.744	0.375	0.173	0.641	0.566	0.038	0.222	0.972	0.382	0.750	0.202	0.265	0.463
abnOCF	-0.150	0.181	0.410***	1.000	-0.041	0.035	-0.050	-0.148	0.145	-0.011	0.070	-0.029	-0.078	0.011	-0.037	0.086	0.248**	-0.010	-0.178	0.126	0.128	-0.090	-0.064
	0.180	0.105	0.000	.	0.717	0.753	0.655	0.186	0.195	0.919	0.531	0.793	0.485	0.919	0.744	0.443	0.025	0.930	0.110	0.260	0.250	0.420	0.568
abnPROD	0.054	0.115	0.047	0.108	1.000	0.127	-0.107	0.065	-0.175	-0.059	-0.232**	0.004	-0.033	0.071	-0.343***	-0.152	0.092	0.042	0.039	-0.064	-0.010	0.132	-0.088
	0.627	0.302	0.673	0.334	.	0.255	0.340	0.564	0.116	0.596	0.036	0.971	0.769	0.525	0.002	0.172	0.413	0.707	0.726	0.566	0.928	0.237	0.433
MAPE	-0.337***	0.195*	0.154	0.023	0.083	1.000	-0.191*	-0.043	0.156	-0.092	-0.105	-0.112	-0.148	-0.106	0.013	0.079	-0.062	0.156	0.018	-0.079	-0.072	0.021	-0.152
	0.002	0.079	0.168	0.836	0.456	.	0.086	0.698	0.162	0.412	0.349	0.318	0.184	0.341	0.907	0.483	0.581	0.161	0.876	0.482	0.521	0.849	0.173
MGT_AGE	0.274**	-0.082	0.058	-0.041	-0.069	-0.199*	1.000	-0.350***	-0.144	0.432***	0.207*	0.154	0.140	-0.014	0.239**	-0.308***	0.190*	-0.317***	0.009	0.486***	0.301***	-0.052	0.127
	0.013	0.461	0.603	0.715	0.540	0.073	.	0.001	0.196	0.000	0.063	0.168	0.209	0.898	0.031	0.005	0.086	0.004	0.937	0.000	0.006	0.642	0.254
MGT_IR	-0.257**	0.148	-0.145	-0.040	0.248**	0.047	-0.444***	1.000	-0.028	-0.378***	-0.332***	-0.216*	0.067	0.301***	-0.303***	0.067	-0.196*	0.184*	-0.085	-0.373***	-0.112	0.075	-0.162
	0.020	0.184	0.193	0.718	0.024	0.675	0.000	.	0.805	0.000	0.002	0.051	0.552	0.006	0.006	0.551	0.078	0.098	0.448	0.001	0.316	0.502	0.147
SO	-0.010	0.163	0.114	0.187*	-0.133	0.040	-0.150	0.013	1.000	-0.002	0.109	-0.021	0.021	-0.058	0.112	0.191*	-0.032	0.073	-0.051	-0.038	-0.058	0.087	0.016
	0.932	0.143	0.309	0.092	0.234	0.721	0.178	0.905	.	0.988	0.329	0.852	0.851	0.606	0.317	0.085	0.775	0.513	0.648	0.737	0.607	0.437	0.890
CMPS_DAMT	0.309***	-0.206*	-0.043	-0.040	-0.104	-0.148	0.507***	-0.680***	-0.052	1.000	0.551***	0.089	-0.151	-0.172	0.214*	-0.277**	0.217**	-0.089	0.061	0.425***	0.172	0.053	0.163
	0.005	0.064	0.699	0.723	0.351	0.185	0.000	0.000	0.642	.	0.000	0.429	0.175	0.123	0.053	0.012	0.050	0.427	0.583	0.000	0.122	0.635	0.142
FRGN	0.329***	-0.171	0.002	0.062	-0.215*	-0.244**	0.264**	-0.627***	0.126	0.611***	1.000	0.021	-0.146	-0.181	0.456***	-0.235**	0.386***	0.035	0.040	0.264**	0.186*	0.014	0.224**
	0.003	0.124	0.983	0.577	0.052	0.027	0.017	0.000	0.260	0.000	.	0.850	0.190	0.104	0.000	0.034	0.000	0.754	0.724	0.017	0.094	0.898	0.043
CROSS	0.057	-0.039	-0.062	0.067	0.013	-0.135	0.131	-0.114	-0.017	0.214*	0.096	1.000	0.482***	0.027	-0.121	-0.013	0.073	-0.158	0.131	0.390***	-0.026	-0.100	-0.052
	0.613	0.726	0.583	0.551	0.910	0.228	0.241	0.309	0.883	0.054	0.389	.	0.000	0.809	0.277	0.909	0.514	0.157	0.241	0.000	0.815	0.371	0.641
RTO_TPBK	-0.244**	0.196*	-0.144	0.026	-0.012	-0.115	0.054	0.240**	-0.015	-0.173	-0.222**	0.544***	1.000	0.357***	-0.216*	0.001	0.029	-0.290***	0.170	0.380***	-0.131	-0.102	0.093
	0.027	0.078	0.198	0.818	0.913	0.303	0.630	0.030	0.891	0.120	0.045	0.000	.	0.001	0.052	0.992	0.794	0.008	0.126	0.000	0.242	0.363	0.405
RTO_TKBKD	-0.113	-0.014	0.125	0.105	0.064	-0.126	-0.043	0.245**	-0.112	-0.120	-0.274**	0.078	0.389***	1.000	-0.182	0.051	-0.017	-0.064	0.087	0.066	0.032	-0.034	0.029
	0.312	0.900	0.262	0.348	0.571	0.260	0.700	0.027	0.315	0.283	0.013	0.488	0.000	.	0.101	0.650	0.882	0.567	0.435	0.554	0.776	0.763	0.796
IDRTO	0.262**	-0.148	0.090	0.007	-0.215*	-0.109	0.225**	-0.555***	0.053	0.333***	0.424***	-0.013	-0.229**	-0.189*	1.000	-0.078	0.033	-0.042	-0.016	0.203*	0.276**	0.094	0.195*
	0.017	0.184	0.423	0.951	0.053	0.328	0.042	0.000	0.634	0.002	0.000	0.905	0.038	0.090	.	0.488	0.767	0.707	0.889	0.067	0.012	0.401	0.079
LOSSPORTION	-0.249**	0.053	0.302***	0.071	-0.214*	0.100	-0.158	0.061	0.207*	-0.291***	-0.213*	0.001	0.075	0.004	-0.059	1.000	-0.669***	0.115	-0.059	-0.111	-0.104	0.052	-0.163
	0.024	0.635	0.006	0.528	0.053	0.371	0.156	0.584	0.063	0.008	0.055	0.990	0.502	0.969	0.599	.	0.000	0.302	0.601	0.322	0.352	0.643	0.143
ROA	0.175	-0.023	-0.126	0.274**	0.096	-0.051	0.080	-0.188*	0.021	0.278**	0.381***	-0.045	-0.141	-0.051	-0.036	-0.582***	1.000	-0.094	0.245**	0.220**	0.061	-0.128	0.186*
	0.116	0.837	0.258	0.013	0.392	0.647	0.476	0.091	0.852	0.011	0.000	0.691	0.206	0.651	0.750	0.000	.	0.399	0.027	0.047	0.588	0.250	0.095
OC	-0.023	-0.053	0.049	0.038	0.079	0.067	-0.272**	0.087	0.054	-0.088	0.066	-0.125	-0.290***	-0.131	-0.013	0.141	-0.156	1.000	-0.156	-0.439***	-0.041	-0.007	-0.116
	0.835	0.637	0.665	0.734	0.482	0.549	0.013	0.437	0.630	0.433	0.557	0.262	0.008	0.239	0.907	0.207	0.161	.	0.161	0.000	0.717	0.948	0.299
GROWTH	0.132	0.028	-0.038	-0.110	0.063	-0.073	0.054	-0.124	-0.055	0.111	0.116	0.093	0.055	0.082	0.066	-0.181	0.331***	-0.260**	1.000	0.189*	-0.284***	-0.048	0.073
	0.238	0.801	0.734	0.326	0.572	0.513	0.631	0.265	0.622	0.320	0.300	0.404	0.621	0.466	0.557	0.103	0.002	0.018	.	0.088	0.010	0.671	0.516
FIRM_AGE	0.071	0.054	0.040	0.175	-0.145	-0.185*	0.514***	-0.468***	-0.011	0.491***	0.325***	0.414***	0.304***	0.136	0.240**	-0.004	0.156	-0.345***	0.144	1.000	0.144	-0.052	0.107
	0.525	0.633	0.719	0.116	0.194	0.096	0.000	0.000	0.919	0.000	0.003	0.000	0.005	0.222	0.030	0.975	0.163	0.002	0.198	.	0.197	0.644	0.337
SEGMENT	0.234**	0.038	0.109	0.133	-0.045	-0.124	0.439***	-0.248**	-0.015	0.196*	0.268**	0.015	-0.043	0.021	0.302***	-0.013	-0.006	-0.018	-0.086	0.255**	1.000	0.018	-0.033
	0.035	0.738	0.329	0.234	0.686	0.266	0.000	0.025	0.895	0.077	0.015	0.895	0.700	0.848	0.006	0.911	0.955	0.871	0.442	0.021	.	0.873	0.766
AUDIT	0.565***	0.073	-0.099	-0.055	0.048	-0.080	-0.023	-0.003	0.083	-0.072	0.023	-0.034	-0.157	-0.068	0.147	-0.008	-0.059	0.062	0.050	-0.067	0.119	1.000	-0.157
	0.000	0.514	0.377	0.623	0.670	0.473	0.841	0.979	0.458	0.522	0.840	0.758	0.160	0.544	0.187	0.944	0.598	0.581	0.658	0.548	0.288	.	0.160
DA/PROD	-0.171	0.005	-0.119	-0.025	-0.057	-0.060	0.094	-0.147	0.016	0.252**	0.219**	-0.029	0.089	0.037	0.195*	-0.142	0.176	-0.072	0.069	0.090	0.058	-0.165	1.000
	0.125	0.963	0.288	0.826	0.612	0.591	0.403	0.186	0.890	0.022	0.049	0.794	0.429	0.739	0.078	0.202	0.114	0.519	0.536	0.421	0.603	0.137	.

Correlations above (below) the diagonal are Pearson (Spearman) correlations.

The bottom number in each is a two-tail p-value. * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

See Table 2 for definition of each variable.

TABLE 4: Correlations for Variables Used in Test of H1(2) and H3

	TAT	*Q1_1mean*	*Q1_2*	*Q1_3*	*Q2_2_1*	*Q2_2_2*	*Q2_2_3*	*Q2_2_4*	*Q2_2_5*	*Q2_2_6*	*AUDIT*	*DA/PROD*
TAT	1.000	0.805***	0.856***	0.781***	0.096	0.464***	0.346***	0.563***	0.613***	0.482***	0.600***	-0.172
	.	0.000	0.000	0.000	0.389	0.000	0.001	0.000	0.000	0.000	0.000	0.123
Q1_1mean	0.840***	1.000	0.611***	0.414***	0.139	0.569***	0.451***	0.608***	0.633***	0.475***	0.480***	-0.096
	0.000	.	0.000	0.000	0.214	0.000	0.000	0.000	0.000	0.000	0.000	0.392
Q1_2	0.861***	0.624***	1.000	0.463***	0.155	0.432***	0.330***	0.431***	0.548***	0.400***	0.551***	-0.219**
	0.000	0.000	.	0.000	0.163	0.000	0.002	0.000	0.000	0.000	0.000	0.048
Q1_3	0.740***	0.489***	0.426***	1.000	-0.050	0.163	0.093	0.362***	0.338***	0.318***	0.432***	-0.096
	0.000	0.000	0.000	.	0.654	0.143	0.408	0.001	0.002	0.004	0.000	0.393
Q2_2_1	0.542***	0.599***	0.435***	0.300***	1.000	0.016	0.130	0.129	0.175	0.168	0.143	-0.099
	0.000	0.000	0.000	0.006	.	0.885	0.246	0.248	0.116	0.131	0.200	0.374
Q2_2_2	0.496***	0.521***	0.448***	0.240**	0.437***	1.000	0.767***	0.297***	0.488***	0.453***	0.252**	-0.072
	0.000	0.000	0.000	0.030	0.000	.	0.000	0.007	0.000	0.000	0.022	0.522
Q2_2_3	0.364***	0.403***	0.338***	0.095	0.426***	0.720***	1.000	0.324***	0.482***	0.468***	0.261**	-0.066
	0.001	0.000	0.002	0.393	0.000	0.000	.	0.003	0.000	0.000	0.018	0.559
Q2_2_4	0.552***	0.624***	0.437***	0.337***	0.569***	0.263**	0.322***	1.000	0.729***	0.589***	0.528***	-0.074
	0.000	0.000	0.000	0.002	0.000	0.017	0.003	.	0.000	0.000	0.000	0.512
Q2_2_5	0.633***	0.629***	0.552***	0.371***	0.674***	0.425***	0.428***	0.752***	1.000	0.679***	0.431***	-0.182
	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	.	0.000	0.000	0.102
Q2_2_6	0.495***	0.500***	0.445***	0.287***	0.436***	0.404***	0.428***	0.580***	0.653***	1.000	0.321***	0.102
	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	.	0.003	0.364
AUDIT	0.565***	0.489***	0.555***	0.356***	0.389***	0.229**	0.256**	0.502***	0.443***	0.329***	1.000	-0.157
	0.000	0.000	0.000	0.001	0.000	0.038	0.020	0.000	0.000	0.003	.	0.160
DA/PROD	-0.171	-0.075	-0.188*	-0.134	-0.188*	-0.090	-0.067	-0.053	-0.182	0.085	-0.165	1.000
	0.125	0.505	0.091	0.229	0.091	0.424	0.549	0.634	0.101	0.450	0.137	.

Correlations above (below) the diagonal are Pearson (Spearman) correlations.

The bottom number in each is a two-tail p-value. * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

See Table 2 for definition of each variable.

TABLE5: Resuts of The Regression of Tone at theTop

Variable	Predicted Sign	A : TAT (AQ)	B : TAT (DA)	C : TAT (abnOCF)	D : TAT (abnPROD)	E : TAT (MAPE)
		B	B	B	B	B
		(t-statics)	(t-statics)	(t-statics)	(t-statics)	(t-statics)
(Constant)		-0.458	-0.444	-0.669	-0.420	-0.258
		-0.207	-0.198	-0.307	-0.191	-0.119
MGT_AGE	+	0.061	0.060	0.058	0.062	0.053
		1.987*	1.925*	1.932*	2.025**	1.782*
MGT_IR	?	0.011	0.008	0.007	0.010	0.006
		0.546	0.434	0.367	0.523	0.302
SO	?	-0.007	0.023	0.039	0.042	0.070
		-0.036	0.117	0.200	0.212	0.362
CMPS_DAMT	+	0.001	0.000	0.000	0.000	0.000
		0.876	0.807	0.795	0.811	0.719
FRGN	+	0.010	0.011	0.010	0.012	0.009
		0.924	0.982	0.905	1.095	0.790
CROSS	+	0.021	0.019	0.019	0.019	0.018
		1.997*	1.921*	1.875*	1.927*	1.799*
RTO_TPBK	?	-0.096	-0.095	-0.101	-0.089	-0.099
		-1.590	-1.561	-1.714*	-1.474	-1.683*
RTO_TKBKD	+	0.002	0.002	0.002	0.002	0.001
		0.529	0.474	0.411	0.424	0.265
IDRTO	+	0.006	0.004	0.002	0.006	0.004
		0.663	0.531	0.296	0.738	0.484
LOSSPORTION	?	-0.242	-0.262	0.007	-0.183	-0.386
		-0.370	-0.399	0.010	-0.276	-0.602
ROA	+	3.733	3.062	3.310	3.309	2.346
		1.092	0.892	1.032	1.015	0.726
OC	+	0.034	0.037	0.025	0.033	0.062
		0.355	0.377	0.263	0.342	0.642
GROWTH	+	0.000	-0.001	-0.003	-0.001	0.000
		-0.082	-0.094	-0.488	-0.161	0.053
FIRM_AGE	?	-0.101	-0.082	0.039	-0.111	-0.001
		-0.271	-0.219	0.105	-0.299	-0.002
SEGMENT	_	-0.174	-0.161	-0.154	-0.171	-0.167
		-1.435	-1.352	-1.321	-1.437	-1.439
OCF	?	-1.528	-1.457	0.399	-1.707	-0.844
		-0.784	-0.664	0.175	-0.879	-0.433
DEBT	+	0.129	0.037	-0.181	0.158	0.233
		0.117	0.034	-0.168	0.144	0.218
AUDIT	+	0.482	0.484	0.475	0.476	0.488
		6.978***	6.900***	7.010***	6.814***	7.252***
AQ	_	4.551				
		0.517				
DA	_		-0.548			
			-0.144			
abnOCF	_			-5.717		
				-1.606		
abnPROD	_				4.629	
					0.782	
MAPE	_					-0.588
						-1.754*
Adjusted R^2		0.434	0.432	0.455	0.437	0.459
F		4.274	4.244	4.553	4.315	4.614

See Table 2 for Variable Definitions ;*, **, and *** indicate significance at p< 10 %, p< 5%, p<1%;.
t-value is based on White's (1980) standard error.
Dependent Varialbe is TAT.

TABLE6: Resuts of The Regression of Effectiveness of Internal Controls

		A:Q2_2_1 Governance improvement	B:Q2_2_2 Effectiveness of Oparation	C:Q2_2_3 Efficiency of Opeariton	D:Q2_2_4 Creditablity of Financial Reporitng	E:Q2_2_5 Enforcement of Compliance	F:Q2_2_6 Promotion of Asset Protection
Variable	Predicted Sign	B (t-statics)	B (t-statics)	B (t-statics)	B (t-statics)	B (t-statics)	B (t-statics)
(Constant)		*-21.737*	2.148	2.665	3.228	2.644	2.877
		-1.188	0.615	0.710	1.292	1.023	0.871
TAT	+	-0.527	0.759	0.397	0.224	0.635	0.507
		-0.503	3.793***	1.848*	1.563	4.291***	2.681***
MGT_AGE	+	*0.386*	-0.009	0.043	0.060	0.051	0.054
		1.487	-0.171	0.801	1.694*	1.395	1.150
MGT_IR	+	*0.033*	0.019	0.011	-0.004	-0.003	-0.022
		0.214	0.653	0.333	-0.188	-0.116	-0.799
SO	*?*	*-2.096*	-0.409	-0.679	0.067	-0.255	-0.313
		-1.292	-1.320	-2.040**	0.300	-1.111	-1.070
CMPS_DAMT	*?*	*-0.004*	0.001	0.001	0.001	-0.001	0.000
		-0.858	0.555	0.559	1.625	-0.703	0.311
FRGN	+	*0.132*	0.002	-0.004	-0.010	0.002	0.019
		1.421	0.086	-0.206	-0.814	0.142	1.118
CROSS	+	*0.049*	-0.039	-0.017	0.000	-0.009	-0.026
		0.576	-2.350**	-0.937	-0.036	-0.742	-1.691*
RTO_TPBK	*?*	*-0.521*	0.008	0.028	0.056	-0.021	0.021
		-1.030	0.083	0.266	0.804	-0.301	0.235
RTO_TKBKD	+	*0.025*	-0.008	-0.003	-0.004	-0.003	0.007
		0.734	-1.288	-0.389	-0.892	-0.624	1.158
IDRTO	+	*0.044*	-0.023	-0.010	0.009	0.004	0.009
		0.635	-1.752*	-0.725	1.003	0.405	0.743
LOSSPORTION	+	*10.010*	0.945	0.682	-0.528	0.101	0.672
		*1.855**	0.917	0.616	-0.716	0.132	0.689
ROA	+	*25.046*	2.683	3.053	2.200	-1.423	0.708
		0.920	0.516	0.547	0.592	-0.370	0.144
OC	_	*-0.257*	-0.025	0.034	-0.069	-0.126	-0.259
		-0.321	-0.163	0.208	-0.632	-1.108	-1.785*
GROWTH	_	*-0.125*	-0.003	0.004	-0.001	0.000	0.000
		*-2.797****	-0.305	0.455	-0.176	-0.074	-0.056
FIRM_AGE	*?*	*0.892*	-0.071	-0.923	-0.945	-0.737	-0.887
		0.290	-0.120	-1.462	-2.249**	-1.694*	-1.597
SEGMENT	_	*-1.234*	0.001	0.086	-0.194	-0.101	0.084
		-1.239	0.003	0.420	-1.428	-0.719	0.469
OCF	*?*	*-5.776*	0.283	0.085	0.711	0.743	1.840
		-0.358	0.092	0.026	0.322	0.325	0.631
DEBT	+	*-2.216*	3.474	2.108	-0.170	-0.264	-0.888
		-0.246	2.021**	1.141	-0.138	-0.207	-0.546
AUDIT	+	*0.986*	-0.080	0.114	0.344	0.052	0.071
		1.292	-0.551	0.725	3.299***	0.484	0.516
Adjusted R^2		0.250	0.401	0.278	0.522	0.492	0.431
F		1.090	2.185	1.258	3.562	3.162	2.470

See Table 2 for Variable Definitions ;*, **, and *** indicate significance at p< 10 %, p< 5%, p<1%;.
t-value is based on White's (1980) standard error.
Dependent Varialbe is A：Q2_2_1, B：Q2_2_2, C：Q2_2_3, D：Q2_2_4, E：Q2_2_5, F：Q2_2_6.

TABLE 7: Determinants of Tone at the Top

		TAT
Variable	**Predicted Sign**	**B**
		(t-statics)
(Constant)		-0.392
		-0.178
MGT_AGE	+	0.059
		1.953*
MGT_IR	+	0.008
		0.445
SO	?	0.024
		0.121
CMPS_DAMT	?	0.001
		0.821
FRGN	+	0.011
		0.991
CROSS	+	0.020
		1.945*
RTO_TPBK	?	-0.094
		-1.570
RTO_TKBKD	?	0.002
		0.471
IDRTO	+	0.005
		0.545
LOSSPORTION	?	-0.273
		-0.422
ROA	+	3.211
		0.989
OC	?	0.037
		0.387
GROWTH	?	-0.001
		-0.102
FIRM_AGE	?	-0.086
		-0.233
SEGMENT	-	-0.162
		-1.370
OCF	?	-1.604
		-0.830
DEBT	+	0.060
		0.055
AUDIT	+	0.486
		7.116***
Adjusted R^2		0.441
F		4.549

See Table 2 for Variable Definitions ;*, **, and *** indicate significance at p< 10 %, p< 5%, p<1%;.
t-value is based on White's (1980) standard error.
Dependent Varialbe is TAT.

FIGURE4: Scatter Diagram for the determinant of Sample Firms

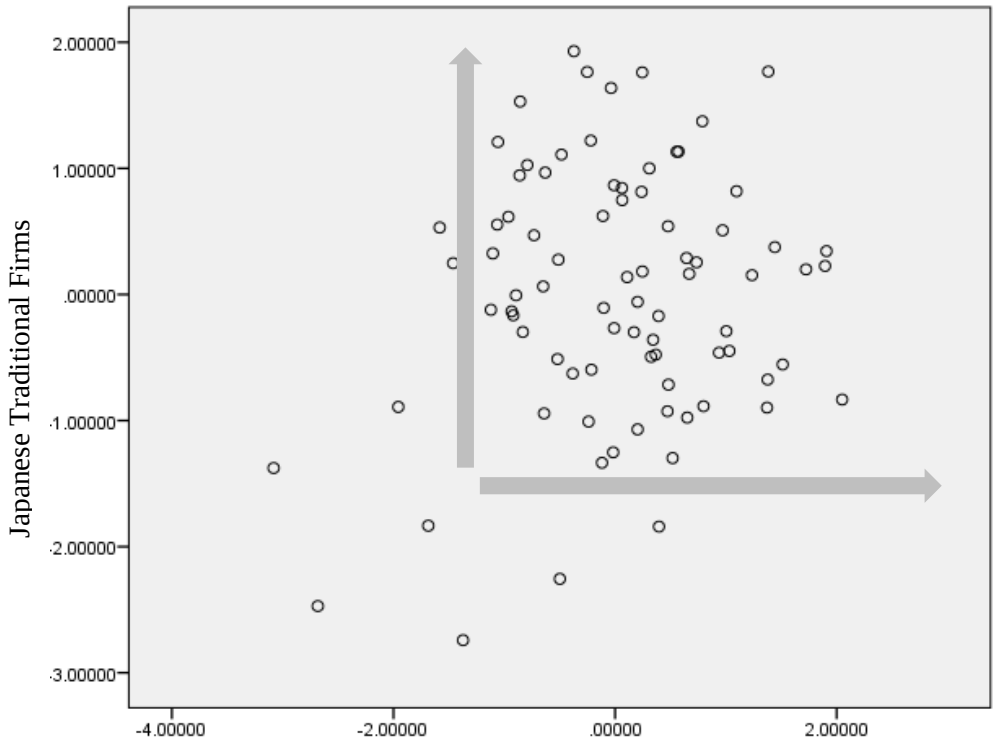
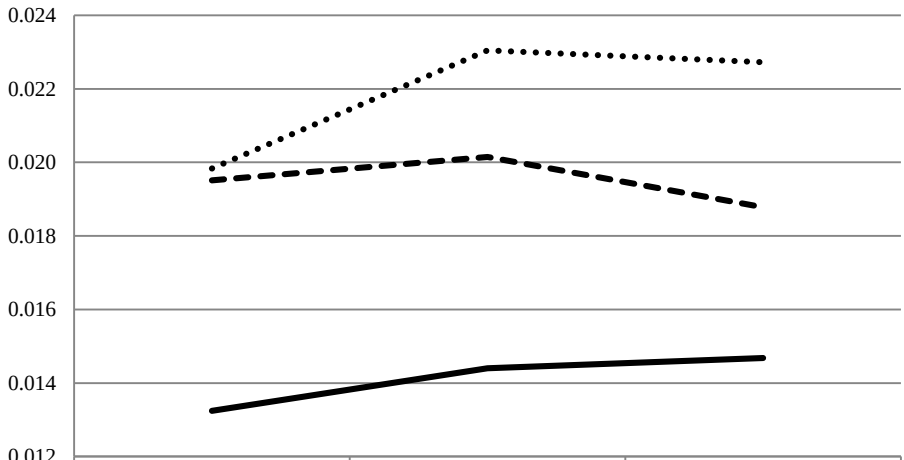


FIGURE5: Time-Series Plot of Accounting and Real Managenets



	2003-2009	2004-2010	2005-2011
DA	0.019514	0.020143	0.018776
abnOCF	0.019835	0.023048	0.022726
abnPROD	0.013248	0.014402	0.014677

TABLE8: Results of the Regresssion of Trade-Off of Eanings Management

Variable	Predicted Sign	A:Q1_1mean	B:Q1_2	C:Q1_3
		B	B	B
		(t-statics)	(t-statics)	(t-statics)
(Constant)		*2.205*	-5.116	3.547
		0.799	-1.715*	1.110
MGT_AGE	+	*0.053*	0.110	0.011
		1.419	2.694***	0.241
MGT_IR	**?**	*0.016*	-0.021	0.018
		0.666	-0.816	0.670
SO	*?*	*-0.231*	0.013	0.285
		-0.953	0.048	1.015
CMPS_DAMT	*?*	*0.001*	0.000	0.000
		1.505	0.509	0.408
FRGN	+	*0.003*	0.014	0.020
		0.220	0.963	1.245
CROSS	+	*0.011*	0.002	0.038
		0.850	0.153	2.575**
RTO_TPBK	+	*-0.090*	-0.088	-0.045
		-1.202	-1.078	-0.515
RTO_TKBKD	+	*0.001*	-0.001	0.008
		0.278	-0.271	1.354
IDRTO	+	*0.014*	-0.005	0.014
		1.370	-0.458	1.134
LOSSPORTION	*?*	0.515	0.831	-2.238
		0.639	0.953	-2.398**
ROA	+	5.780	6.722	-1.433
		1.428	1.535	-0.306
OC	-	-0.043	0.146	-0.045
		-0.356	1.124	-0.320
GROWTH	-	-0.004	-0.008	0.009
		-0.603	-1.047	1.181
FIRM_AGE	*?*	-0.483	0.111	-0.104
		-1.046	0.222	-0.195
SEGMENT	-	-0.107	-0.269	-0.184
		-0.724	-1.684*	-1.076
OCF	*?*	-2.610	-1.733	-1.106
		-1.085	-0.666	-0.397
DEBT	+	0.877	0.550	-1.624
		0.650	0.377	-1.040
AUDIT	+	0.391	0.575	0.418
		4.537***	6.160***	4.181***
DA/PROD	-	-0.217	-0.547	-0.349
		-0.967	-2.254**	-1.343
Adjusted R^2		0.257	0.415	0.302
F		2.475	4.018	2.846

See Table 2 for Variable Definitions ;*, **, and *** indicate significance at p< 10 %, p< 5%, p<1%;.
t-value is based on White's (1980) standard error.
Dependent Varialbe is A：Q1_1mean, B：Q1_2, C：Q1_3.

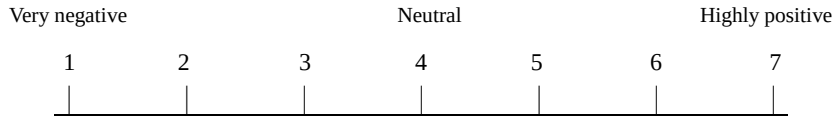
APPENDIX

SURVERY FOR INTERNAL CONTROLS and IT

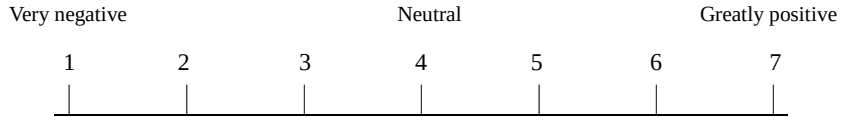
<Tone at the Top>

1.1. How would you describe the attitude of the CEO in your company with regard to documenting and assessing the effectiveness of the internal control structure and procedures over financial reporting?

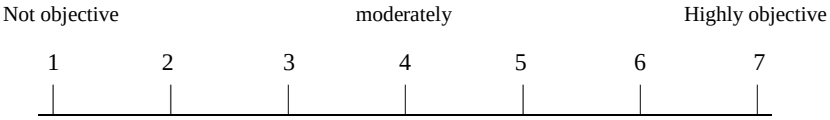
1. Complying with the requirements of J-SOX



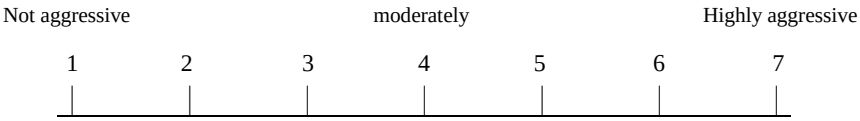
2. Improving internal controls in the company



1.2. If independent and objective third-parties were to judge the objectivity of business decisions made by the CEO at your company, what do you think they would say?



1.3. How aggressive is the CEO with regard to meeting or exceeding targets, such as sales, net income and/or earnings per share?

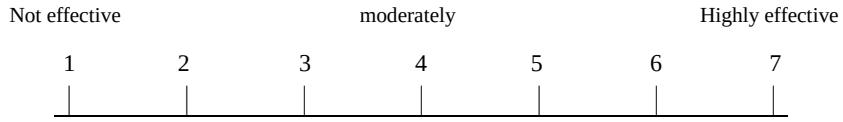


<Enforcement of Internal Controls and Governance>

2.2. To what extent does complying with the requirement of J-SOX contribute to the following?

1. Improve corporate governance in your firm

2. Improve the effectiveness of operations such as meeting the targets



3. Improve the efficiency of operations, such as rational use of resources

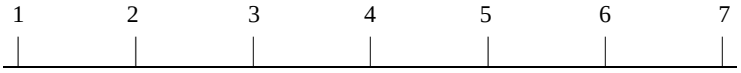
Not effective moderately Highly effective

1 2 3 4 5 6 7

4. Improve the credibility of financial reporting

Not effective moderately Highly effective

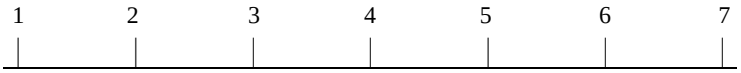
1 2 3 4 5 6 7



5. Enforce compliance with the requirements of laws

Not effective moderately Highly effective

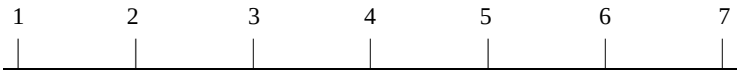
1 2 3 4 5 6 7



6. Promote the protection of assets

Not effective moderately Highly effective

1 2 3 4 5 6 7

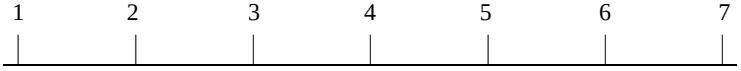


<Audit by Audit Firms or CPAs>

3.1 What is the quality of *financial statements audits* by your external auditors?

Extremely low Standard Extremely high

1 2 3 4 5 6 7



3.2 What is the quality of *internal controls audits* by your external auditors?

Extremely low Standard Extremely high

1 2 3 4 5 6 7