Issues in Social and Environmental Accounting
Vol. 3, No. 1 2009
Pp. 26-44

Varying the Quality of Business Communication Caused by Compliance of Different Accounting Rules

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Abstract

This study examines the extent of Indonesian companies' compliance with the Indonesian accounting regulations (IARC) of inventory, fixed assets, and depreciation by analyzing 160 Indonesian listed companies' 2006 annual reports. This study also looks at potential factors that explain the level of this compliance. Analysis reveals a high level of 71.63% inventory compliance, 51.13% fixed assets compliance, and 99.69% depreciation compliance with accounting rules. T-test and regression analysis show that firm size is a significant predictor of accounting compliance. Importantly, ownership and governance structures do not influence the level of compliance. Although Indonesian firms complied with more than 50% of the key accounting rule provisions, regulatory intervention appears needed to improve compliance. Such regulation might include sanctions as promulgated by multilateral financial organizations (World Bank 2005).

Keywords: *compliance, Indonesia, listed firms, ownership concentration, governance structures, regulatory intervention and accounting standards*

Introduction

This study examines the extent of Indonesian companies' compliance with the Indonesian accounting regulations (IARC) of inventory, fixed assets, and depreciation. This study also examines factors that influence listed companies compliance with these Indonesian accounting standards. These factors include ownership concentration (top one shareholder), corporate governance

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(independent commissioners), size of firm, auditor type, ROA (Return on Assets), and industry categories. Control variables are also used including expert commissioners, leverage, business complexity, and independent audit committee.

This study is important for a number of reasons. According to the Indonesian Capital Market Supervisory Agency (Bapepam, 2000; 2003), the regulatory body in Indonesia, accounting compliance is a critical issue in Indonesia's financial markets, particularly as a means of contributing to the national economy as an emerging country (World Bank 2006). Further, compliance improves transparency (Bapepam, 2004; JSX 2004b), by allowing standards to be comprehensively relied upon by Indonesian-listed users of annual reports (Bapepam 2000; 2003).

Using statistical analysis, this study investigates the degree to which the Indonesian-listed firms comply with the Indonesian accounting standards. This study finds that a high level of 71.63% inventory compliance, 51.13% fixed assets compliance, and 99.69% depreciation compliance with accounting rules.

This paper proceeds as follows. The next section discusses past literature and hypotheses development. This is followed by a description of the research method employed. Two further sections present the descriptive statistics and additional statistical analysis, respectively. Implications and conclusions of the paper are covered in the final section.

Literature Review

Agency theory is used to inform this study which advances the notion that, in capital markets, agency problems arise where there is a conflict of interest arising from divergent goals between principal and agent (Jenson and Meckling, 1976), and difficulties in monitoring agents' actions (Eisenhardt, 1989). In capital markets, stakeholders will reduce the costs that they want to pay for a company's shares by predicting the extent of managers' agency costs (Kurth and Lehnert 2006). In theory, a firm will select ownership and corporate governance structures that are well organized to reduce agency costs (Fauver and Fuerst 2006). This theory advances the notion that, in capital markets, agency problems arise where there is a conflict of interest arising from divergent goals between principal and agent, and difficulties in monitoring agents' actions (Eisenhardt, 1989). In capital markets, stakeholders will reduce the costs that they want to pay for a company's shares by predicting the extent of managers' agency costs (Kurth and Lehnert 2006). In theory, a firm will select ownership and corporate governance structures that are well organized to reduce agency costs (Fauver and Fuerst 2006). The main issue regarding the firm is the information asymmetry between agents and principals. In terms of information asymmetry, communication between agents and principals might not always be effective (Brennan 2006). Information asymmetry happens when the principals' ability to oversee the agents' performances and jobs are limited. Agency theory, in this situation, predicts that the agents could decrease their performance or may even shirk their responsibilities due to their ability to conceal such performance deficiencies from the principals (Kunz and Pfaff 2002).

The findings of Shleiver and Vishny (1997) and McColgan (2001) suggest that ownership concentration and independent commissioners are the key determinants in terms of agency theory. The costs of the agency problems, 'agency costs', can be reduced by varying the governance and ownership structures. In this regard, agency problems occurring from conflicts of interests between principals and agents could be reduced if the ownership (principals) was less concentrated and if the monitoring between the agent and principal was improved by greater independent scrutiny. This research offers a useful and practical application of agency theory in ownership structure and corporate governance mechanism context by seeking to answer the following overarching research question*: Are the concepts of ownership structures and corporate governance significant determinants of accounting regulatory compliance in Indonesia?*

Ownership concentration (Top one shareholder)

Some owners, by virtue of the size of their equity positions, effectively have some control over the firms they own (Villalonga and Amit 2004). In modern companies, conflicts of interest between corporate insiders, for example controlling shareholders and managers, and outside investors, requires close analysis (Prasad, Green and Murinde 2001) because the company's ownership structure is deemed a primary determinant of the extent of agency problems between controlling insiders and outside investors.

In general, emerging markets, such as Indonesia, have highly concentrated ownership structures, particularly in the form of family ownership (Claessens, Djankov and Lang 1999; Lins 2003). When ownership is concentrated to a degree where the single largest shareholder has effective control of the firm, the nature of the agency problem shifts away from the agent-principal conflict. Principals-managers problems will be less likely to be about managements (agents) versus owners (shareholders) but more focused on minority shareholders versus controlling shareholders (Berglof and Claessens 2004). Shleiver and Vishny (1997) argue that, as ownership gets beyond a certain point, large owners gain nearly full control and prefer to use firms to generate private benefits that are not shared by minority shareholders. Studies by La Porta, Lopez -de-Silanes, Shleiver, and Vishny (1998) and Shleiver and Vishny (1997) show the problems associated with high ownership concentration, and the agency conflict between large and small shareholders. When large shareholders effectively control corporations, their policies may result in the expropriation of wealth from minority shareholders. The conflicts of interest between large and small shareholders can be numerous, including controlling shareholders enriching themselves by transferring profits to other companies they control.

Ownership concentration in Indonesia is dominated by families or the government (Claessens et al. 1999). Claessens, Djankov, and Lang (2000) found that there is evidence of expropriation of minority shareholders' wealth by a majority or controlling shareholders. As a result, McKinsey (2001) advises that distinct ownership structures, should be examined more explicitly. To formally test the impact of ownership concentra-

tion, the following hypothesis is examined:

H_1 : *There is a negative relationship between the level of ownership concentration and the level of IARC of the firms*

Corporate governance (Independent commissioners)

The issue of corporate governance in modern corporations arises because of the separation of ownership and control, and the diffusion of equity among investors (Berle and Means 1932). The implementation of corporate governance impacts on the structures through which the objectives of the company are set (World Bank 2006; Cooper and Owen 2007), the means by which those objectives are attained, the monitoring of performance, and the ways it can be improved (Ho 2003). The importance of corporate governance derived from its contribution to business prosperity (Sarkar and Sarkar 2000), accountability (Yong and Guan 2000), competitive investment (Claessens, Glassner and Klingebiel 2002), transparency OECD 2002), and stakeholder confidence (Jacobidies and Winter 2005).

However, the application of corporate governance in Indonesia is seen as a matter of form rather than of substance (Roche 2005). According to the Company Law No.1/1995, the Indonesian company has a two tier management structure comprising a board of directors headed by a president director and a board of commissioners headed by a president commissioner (Company Law 1995)[1]. Directors manage and represent the company on a day to day basis, whilst commissioners supervise and advise the directors. Commissioners provide independent oversight of management and hold management accountable to shareholders for its actions. A widely held view is that boards are more effective in their monitoring of management when there is a strong base of independent commissioners on the board of commissioners (Federal Register 2003). This condition reduces agency costs associated with the separation of ownership and control. In turn, this encourages managers to accept agency control mechanisms. An ideal board of commissioners would have a low number of commissioners who are employees of the firm, past or present (Davidson, Nemec, Worrell and Lin 2002). In the context of corporate governance mechanisms, the board of commissioners is properly viewed as the solution for problems arising from agent-principal relations.

Weak corporate governance is viewed as one of the factors that contributed to the Asian financial crisis, including the Indonesian experience (Choi 2000). In Indonesia, Bapepam and Jakarta Stock Exchange (JSX) now require all companies listed on stock exchange to have at least 30% of the board as independent commissioners (JSX 2004a). It is likely that the agency conflict between managers and shareholders can be reduced by a greater level of independent commissioners. A study by Fitzpatrick (2000) in Indonesia emphasizes that external or independent commissioners can improve corporate governance. Adam and Mehran (2003) suggested that increases in the proportion of outside commissioners on the board should increase firm performance as they are more effective monitors of company managers. To test

[1] Directors and commissioners are appointed by shareholders at a general meeting (Company Law 1995).

the degree of corporate governance as measured by independent commissioners, the following hypothesis is examined:

H_2 : There is a positive relationship between the level of independence of the commissioners and the level of IARC of the firms

Size of firm

Size of firm has an important effect on a firm to disclose compulsorily its corporate information (Owusu-Ansah 1998). Relative to a small firm, a large firm has consideralbly more resources to devote to corporate reporting (Alchian 1969). Large firms are also likely to have a variety of divisions which require extensive reporting to satisfy stakeholders (Dye 1990). Descriptive studies (Wallace, Naser and Mora 1994; Inchausti 1997) indicate a positive association between firm size and compliance with corporate reporting requirements. It is, therefore, hypothesised in the relationship between firm size and compliance with corporate reporting requirements in Indonesia, that:

H3 : There is a positive relationship between the level of firm size and the level of IARC of the firms

Auditor type

This research investigates the relationship between auditor type and regulatory compliance in the Indonesian context. Previous studies (Wallace and Naser 1995) find that level of compliance with mandatory disclosure is less for companies audited by one of the major auditor firms in Hong Kong, but Patton and Zelenka (1997) finds that more firms audited by the major auditor firms in the Czech Republic showed higher compliance with mandatory disclosure.

Choice of external auditor is a mechanism that helps improve conflicts of interest between agent and owner (principal) (Craswell and Taylor 1992). Large auditor firms can act as a mechanism to minimise agency cost and exert more of monitoring role by limiting opportunistic behaviour by agents (Jensen and Meckling 1976; Watts and Zimmerman 1983). DeAngelo (1981) finds that companies audited by the major auditor firms have substantial agency costs, and try to reduce agency costs by employing the major auditor firms. Thus, on the basis of this position, it is hypothesized that:

H4: There is a positive relationship between firms audited by Big 4 auditor and the level of IARC of the firms

ROA (Return on Assets)

The capital market rewards profitable firms by increasing their share price, which, provides managers with incentives to generate greater information in the annual reports. Previous studies (Wallace and Naser 1995; Inchausti 1997) argue that ROA is an important factor affecting the level at which firms release obligatory data on corporate reports. Other previous studies suggest that compliance with international accounting standards by profitable firms is one way to signal superior performance to the market (Dumontier and Raffournier 1998). Leuz (2003) forecasted that firms with large profits are more likely to comply with international accounting standards that with firms with smaller profits. It is, therefore, hypothesised on the relationship between ROA and compliance requirements in Indone-

sia, that:

H5 : There is a positive relationship between firms with larger ROA (Return on Assets) and the level of IARC of the firms

Industry categories

The application of accounting policies might differ by industry (Mubarak and Hassan 2006).

The characteristics of industries may show up differences in disclosure and reporting regulatory compliance (Ghose 2006). Many past studies (Ng and Koh 1993; Tower, Hancock and Taplin 1999; Taplin, Tower and Hancock 2002) have classified industry by four categories: resources, manufacturers, financial, and services industries. However, the industry environment in Indonesia is unique. Rosser (1999) and Craig and Diga (1998) note that the real estate industry is one of dominant sectors in Indonesian economy activities. Financial industries are excluded, because they are fundamentally different and they have their own rules from Central Bank (*Bank Indonesia*). Four industry categories for industry classification are thus utilized: resources firms, manufacturers, real estates companies, and services entities industries. It is hypothesized that:

H6: There is a relationship between industry categories and the level of IARC of the firms

Research methods

Dependent variables

This study examines factors that influence Indonesian listed companies compliance (IARC) with the Indonesian accounting standards of inventory, fixed asset, and depreciation of fixed assets (IAI 2006). The level of compliance with each of these Indonesian accounting standards is measured by a self constructed compliance index consistent with prior studies (Al-Basteki 1995; Dumontier and Raffournier 1998; El-Gazzar, Finn and Jacob 1999; Murphy 1999; Tower et al. 1999; Street and Bryant 2000; Street and Gray 2002; Glaum and Street 2003; Tarca 2004). These standards are composed of the following number of explicit requirements: inventory - 9 requirements; fixed asset – 16 requirements and depreciation - 4 requirements, a total of 29 items (Setyadi, Rusmin, Brown and Tower 2007). Consistent with prior studies each required item on the checklist is coded one if it is disclosed and zero if the item is not disclosed. The *IARCinv* is computed as the actual total number of inventory required items provided by the Indonesian -listed companies on their annual reports divided by the maximum inventory applicable score. *IARCfa* is calculated as the actual total number of fixed assets required items provided by the Indonesian-listed companies on their annual reports divided by the maximum fixed assets applicable score. *IARCdep* is computed as the actual total number of depreciation required items provided by the Indonesian-listed companies on their annual reports divided by the maximum depreciation applicable score.

Independent variables

Consistent with Claessens et al., (2000), top one shareholder ownership is measured by the proportion of shares owned by the top one shareholder to the total number of shares issued.

To accommodate, Indonesia's two-tiered board structure, this study the ratio of the number of independent commissioners to the total number of commissioners on the board of commissioners is used as a proxy for corporate governance.

Size of firm is measured by the log of a firm's total assets in rupiah. Prior research recognizes the relationship between corporate reporting and firm size. Ahmed and Courtis (1999) state that firm size an essential factor in corporate reporting.

In order to keep auditors' reputation, audit firms ask clients to disclose all important information in their report (Chalmers and Godfrey 2004). Consistent with Barako, Hancock and Izan (2006), this study measures auditor type by the presence of Big 4 auditors versus non Big 4 auditors in publicly listed firms where 1 if Big 4, and 0 if otherwise. This is consistent with previous research

Singhvi and Desai (1971) and Haniffa and Cooke (2002) argue that the Board of Directors (in Indonesia's case) are encouraged to disclose information in detail to maintain positions and compensation. In this study, ROA is measured as net profit divided by total assets. This is consistent with prior studies (Ali, Ahmed and Henry 2004; Barako et al. 2006).

Finally, four industry categories are measured as classification of industries into resources, manufacturers, real estate, and services.

Four control variables are also analysed. Expert commissioners are measured as a ratio of the number of expert commissioners to the total number of commissioners on the Board of Commissioners. Jensen and Meckling (1976) argue that there is a strong link between leverage and disclosure; in this study, leverage is measured as a debt ratio defined as total debt to total assets. Haniffa and Cooke (2002) and Auch (2004) argue that business complexity plays a role in the extent of compliance with accounting standards; this is measured as a presence of a subsidiary of a listed firm where 1 is a firm which has at least one subsidiary; and 0 is a firm which does not have any subsidiaries. Lastly, independent audit committee is measured as ratio of the number of independent audit committee to the total number of committee on the Audit Committee (Klein 2002; Zhang, Zhou and Zhou 2007).

Statistical analysis and sample selection

This study uses multiple regression with three metric dependent variables (Indonesian Accounting Regulatory Compliance - IARC: IARCinv, IARCfa and IARCdep) and five independent variables (top one shareholder, independent commissioners, and firm size as metric; and industry categories and auditor type as a non-metric categorical), with four control variables (business complexity, and independent audit committee as non-metric categorical; and leverage as a metric). The main statistical method utilized to test hypotheses is Ordinary Least Square (OLS) regression:

This study examines a random sample of 160 annual reports of non-financial listed companies on the JSX for the period of 1 January to 31 December 2006. The sample is 56.74% (or 160 annual

reports) and derived from the population of 282 non-financial firms listed on JSX. Financial listed firms are excluded from this compliance study because they have their own rules from the Central Bank (*Bank Indonesia*). Different regulation applies to financial firms such as banks, insurance and investment companies, the unique nature of transactions and the assets portfolio of such entities (Karim and Ahmed 2005). Annual reports are chosen as source of data because they are easily accessed McQueen 2001), useful (Yeoh 2005), communicated widely (Anderson 1998; Beattie, McInnes and Fearnley 2004), and financially focused.

Descriptive Statistics

Table 1 provides descriptive statistics for all of the observations. It shows the mean of *inventory* compliance is 71.63% (standard deviation of 15.64%), with a minimum of 22.22% compliance and a maximum of 100.00% compliance. The mean of *fixed assets* compliance is 51.13% (standard deviation of 22.47%), with a minimum of 31.25% compliance and a maximum of 100.00% compliance. The mean of *depreciation* compliance is 99.69% (standard deviation of 2.786%), with a minimum of 75.00% compliance and a maximum of 100.00% compliance. There is only one company (PT Jakarta Setiabudi Internasional Tbk.) that totally complied with the accounting standards requirements.

The mean of ownership concentration (*top one shareholder*) is 46.11% with a lowest concentration of 6.64% and a highest ownership concentration of 92.88%. The mean level of *independent commissioners* is 40.91% ranging from 20.00% to 80.00%. The mean indicates that, on average Indonesian firms-listed have total assets of IDR4,286,884.75million (standard deviation: IDR10,961,151.33million). The mean indicates that, on average Indonesian firms-listed have ROA of 3.60% (standard deviation: 10.32%). On average Indonesian firms-listed has *leverage* of 52.28% (standard deviation: 31.88%). The mean of *independent audit committee* is 30.99% ranging from 0% to 66.67% and the mean of *Expert commissioners* is 51.72% ranging from 0% to 100.00% (see Table 1).

Table 1 Descriptive statistics

No.		Minimum	Maximum	Mean	Median	Std. Deviation
1	IARCinv	22.22	100.00	71.63	77.78	15.64
2	IARCfa	31.25	100.00	51.13	37.50	22.47
3	IARCdep	75.00	100.00	99.69	100.00	2.79
4	TopOne	6.64	92.88	46.11	48.67	20.62
5	IndCom	20.00	80.00	40.91	40.00	10.56
6	Size -Log	8.85	18.23	13.76	13.89	1.79
7	Size (Assets)[2]	7000.00	82333378.00	4286884.75	1075000.00	10961151.33
8	ROA	-78.01	37.22	3.60	3.30	10.32
9	Leverage	0.10	221.43	52.28	51.24	31.88
10	IndAC	0.00	66.67	30.99	33.33	15.23
11	ExpCom	0.00	100.00	51.72	50.00	31.98

[2] Size (Assets): Total assets (in million rupiah).

Table 2 provides descriptive statistics for individual accounting standards, from *INV1* (Lower of cost and net realizable value) to *DEP4* (Consistent from period to period) (29 compliance items: *inventory* – 9 items, *fixed assets* – 16 items, and *depreciation* – 4 items). It shows the level of compliance of companies with each individual accounting standard. It also shows the highest level of compliance of companies with *FA1 (*Fixed assets that qualifies for recognition as an asset)*, FA2 (*Recorded at its cost)*, FA8 (*The gross carrying amount)*, FA9 (*Accumulated depreciation at the beginning and end of the period)*, DEP1 (*Allocation on a systematic basis)*, DEP3* (The depreciation method used) and *DEP4 (*The useful lives) compliance with score of 100% respectively. However, it shows the lowest level of compliance of companies with *FA11 (*Independent valuer was involved) compliance with score of 14%.

Table 2 Descriptive statistics for individual accounting standards

No.	Variable	Title	% Compliance
1	INV1	Lower of cost and net realizable value	0.94
2	INV3	Cost of formulas	0.91
3	INV6	Total carrying amount	0.91
4	INV7	Appropriate classification to the entity	0.91
5	INV5	Accounting policy	0.90
6	INV2	The cost of inventories	0.54
7	INV8	Fair value less costs to sell	0.43
8	INV4	Recognition as an expense	0.29
9	INV9	The amount of inventories recognized as an expense during the period	0.23
10	FA1	Fixed assets that qualifies for recognition as an asset	1.00
11	FA2	Recorded at its cost	1.00
12	FA8	The gross carrying amount	1.00
13	FA9	Accumulated depreciation at the beginning and end of the period	1.00
14	FA3	Amount of accumulated depreciation	0.99
15	FA7	Measurement of gross carrying amount	0.99
16	FA4	Revaluation of fixed assets	0.33
17	FA5	Explain the effect of revaluation	0.31
18	FA6	Difference between revaluation value and book value must be recorded on equity account	0.24
19	FA10	Effective date of the revaluation	0.24
20	FA15	Each re-valued class of fixed asset	0.20
21	FA12	The revaluation methods used for fixed assets	0.19
22	FA16	The amount of revaluation reserve	0.19
23	FA13	Significant assumptions for items' fair values	0.18
24	FA14	Items' fair values were determined	0.18
25	FA11	Independent valuer was involved	0.14
26	DEP1	Allocation on a systematic basis	1.00
27	DEP3	The depreciation method used	1.00
28	DEP4	The useful lives	1.00
29	DEP2	Consistent from period to period	0.99

Table 3 shows the frequency of auditor type indicating that the *Big 4* firms audit 49% (or 78) of listed companies in Indonesia. It also illustrates that 84% (or 134) of the *company has at least one subsidiary*. Table 4 also highlights the *four industry categories* of listed companies in Indonesia have a wide range. *Resources* has 18% (or 29), *manufacturers* has 27% (or 43), *real estates* has 17% (or 28), and *services* has 38% (or 60).

Univariate t-tests and ANOVA statistical analysis reveal that the different means of compliance between *auditor type* and *business complexity* are not statistically significant for IARCinv, IARCfa, and IARCdep. However, there are clear industry differences; the results indicate that *four industry categories* are significant with p-value of 0.00 ($p<0.01$) only for IARCfa.

Table 3 Frequency and comparison of compliance means

	N	Percent of companies	IARCinv mean	IARCfa mean	IARCdep mean	IARCinv T-test		IARCfa T-test		IARCdep T-test	
						F	Sig. (p-value)	F	Sig. (p-value)	F	Sig. (p-value)
Audited by:											
Non Big 4	82	51	71.69	50.23	100.00						
Big 4	78	49	71.58	52.08	99.36						
Total	160	100	71.63	51.13	99.69	0.00	0.96	0.271	0.60	2.13	0.15
Business complexity:											
Company has no subsidiary	26	16	73.61	51.20	100.00						
Company has subsidiary	134	84	71.26	51.12	99.63						
Total	160	100	71.63	51.13	99.69	0.46	0.50	0.000	0.99	0.39	0.53
Four industry categories:						IARCinv ANOVA		IARCfa ANOVA		IARCdep ANOVA	
1. Resources	29	18	70.09	45.04	99.14						
2. Manufacturers	43	27	73.90	61.77	99.42						
3. Real estate	28	17	72.84	47.32	100.00						
4. Services	60	38	69.96	48.23	100.00						
Total	160	100	71.63	51.13	99.69	0.64	0.59	4.854	0.00*	0.88	0.46

Legend: * denotes statistically highly significant at $p<0.01$

Further Statistical Analysis

Correlations[3]

Table 4 reports Pearson and Spearman correlation coefficients. The upper half is Pearson pair-wise coefficients and the lower half is Spearman correlation coefficients. Both Pearson and Spearman correlations show a statistically significant correlation between *size of firm* and *auditor type* ($p<0.01$) and give the high-

Table 4
Pearson and Spearman correlations

Pearson Correlations

	IARCinv	IARCfa	IARCdep	TopOne	IndCom	Size	AudType	ROA	FourIndCat	ExpCom	Leverage	Business	IndAC
IARCinv	1	0.183(*)	-0.004	-0.030	-0.053	0.163(*)	-0.004	0.151	-0.041	0.091	-0.014	-0.055	-0.003
IARCfa	0.143	1	0.068	0.099	-0.013	0.205(**)	0.041	0.148	-0.068	0.065	0.002	-0.001	0.078
IARCdep	-0.007	0.074	1	-0.055	-0.014	-0.098	-0.115	-0.079	0.123	-0.002	0.010	-0.050	-0.042
TopOne	-0.036	0.064	-0.060	1	-0.018	-0.068	0.264(**)	0.185(*)	-0.057	0.073	-0.172(*)	0.034	0.035
IndCom	-0.062	-0.043	-0.046	0.045	1	-0.029	0.162(*)	0.023	0.139	0.022	-0.049	-0.064	-0.009
Size	0.157	0.217(**)	-0.118	-0.076	-0.006	1	0.418(**)	0.243(**)	-0.339(**)	0.032	0.019	0.244(**)	0.059
AudType	0.031	0.044	-0.115	0.265(**)	0.188(*)	0.438(**)	1	0.227(**)	-0.164(*)	0.041	0.046	0.057	0.045
ROA	0.131	0.148	-0.039	0.224(**)	-0.011	0.221(**)	0.256(**)	1	-0.174(*)	0.098	-0.281(**)	-0.044	0.104
FourIndCat	-0.041	-0.108	0.121	-0.049	0.095	-0.343(**)	-0.157(*)	-0.224(**)	1	0.009	0.029	-0.069	0.011
ExpCom	0.114	0.082	0.008	0.099	0.009	0.053	0.056	-0.018	0.014	1	-0.128	0.006	0.035
Leverage	0.010	0.010	0.011	-0.163(*)	-0.007	0.091	0.048	-0.249(**)	0.059	-0.097	1	0.040	-0.064
Business	-0.057	-0.016	-0.050	0.041	-0.021	0.259(**)	0.057	-0.001	-0.064	0.000	0.069	1	0.062
IndAC	0.018	0.107	-0.100	0.033	-0.007	0.033	0.060	0.093	0.031	0.022	-0.006	0.047	1

Spearman Correlations

Legend: * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

est correlation coefficients, 0.418 and 0.438 respectively. Since the variables are to be used in regression analysis and as these correlation values are below the critical limits of 0.80 (Hair, Anderson, Tatham and Black 1995; Cooper and Schindler 2003; Ghozali 2005), it is suggested that a multicollinearity problem between independent variables is not a serious concern.

Multiple regressions

Table 5 communicates the results of multiple regressions[4] analysis of *inventory* compliance, *fixed assets* compliance, and *depreciation* compliance. The table provides p-values and coefficients of all independent variables in the regression model. It illustrates that for *inventory* compliance: *auditor type, busi-*

Table 5
Results of multiple regressions analysis of IARCinv, IARCfa and IARCdep[5]

Multiple Regression Model	Findings					
	IARCinv		IARCfa		IARCdep	
n	160 Annual Reports		160 Annual Reports		160 Annual Reports	
F Value	1.08		1.35		0.45	
Significance	0.38		0.21		0.92	
Adjusted R Squared	0.01		0.02		-0.04	
Variables	**B**	**P-Value**	**B**	**P-Value**	**B**	**P-Value**
Constant or intercept	3.09	0.00	-0.22	0.83	37.57	0.00
Auditor type	-1.11	0.27	-1.38	0.17	-0.72	0.47
Business complexity	-1.26	0.21	-0.77	0.45	-0.40	0.69
Industry categories	0.49	0.63	0.17	0.87	1.12	0.27
Top One shareholder	0.10	0.92	1.65	0.10	-0.28	0.78
Independent commissioners	-0.67	0.50	0.16	0.87	-0.23	0.82
Firm's Size (Log)[1]	2.16	0.03**	2.66	0.01**	-0.19	0.85
Return on Assets	1.59	0.12	1.09	0.28	-0.41	0.68
Leverage	0.60	0.55	0.81	0.42	-0.05	0.96
Independent audit committee	-0.24	0.81	0.76	0.45	-0.40	0.69
Expert commissioners	1.07	0.29	0.62	0.54	0.09	0.93

Notes: [1] Firm's Size is transformed into log form to avoid skewness.
* Highly significant at the level of 1%; ** Significant at the level of 5%;
*** Moderately significant at the level of 10%

ness complexity, industry categories, top one shareholder, *independent commissioners, ROA, leverage*, *independent audit committee,* and *expert commissioners* are not found to be significant predictors of the extent of *inventory* compliance since their p-values (0.27, 0.21, 0.63, 0.92, 0.51, 0.12, 0.55, 0.81, and 0.29) are greater than the 0.05 ($p>0.05$) significance level. However, *firm size* is significant with its p-value of 0.03 ($p<0.05$). Therefore, hypothesis 3 (*H3: size of firm*) is accepted.

The table illustrates that for *fixed assets* compliance: *auditor type, business complexity, industry categories, top one shareholder*, *independent commissioners, ROA, leverage*, *independent audit committee,* and *expert commissioners* are not found to be significant predictors of the extent of *inventory* compliance since their p-values (0.17, 0.45, 0.87, 0.10, 0.87, 0.28, 0.42, 0.45, and 0.54) are greater than the 0.05 ($p>0.05$) significance level. However, *firm size* is significant with its p-value of 0.01 ($p<0.05$). Therefore, hypothesis 3 (*H3: size of firm*) is accepted.

The table also illustrates that for *depreciation* compliance, there is no significant predictors of the extent of *depreciation* compliance since their p-values are greater than the 0.05 ($p>0.05$) significance level.

[3] This study further analysed Tukey HSD (honesty significant different) post hoc test, multiple comparisons of four industry categories for *inventory* compliance, *fixed assets* compliance, and *depreciation* compliance. The results illustrates that *manufacturers have fundamentally higher* compliance than *resources, real estate*, and *services firms* with its p-values of 0.01, 0.03, and 0.01 respectively ($p<0.05$), for fixed assets compliance. In addition, three ANOVAs show that the only fixed assets compliance is significant with its p-value of 0.00.

[4] This study further analysed possible outliers by using Cook's distance, and VIF (Variance Inflation Factor) and Tolerance the summary scores showed no problem. However, further analysis using the Mahalanobis distance measure highlight possible concerns. Therefore, the statistical analysis was run with and without possible Mahalanobis-linked outliers. The results were fundamentally similar to the original analysis, therefore the full data set is used in all statistical presentations.

[5] Backward regressions have been done and give the same statistical result as the full regression model.

Implications and Conclusion

This study provides an analysis of the extent to which Indonesian-listed firms comply with Indonesian accounting standards. Compliance index is a self constructed based on a 29 item of Indonesian accounting standards and derived from Indonesian accounting standards on inventory, fixed assets, and depreciation (Setyadi et al. 2007). Using 160 non -financial Indonesian-listed companies' 2006 annual reports, this study observes the extent of compliance with the Indonesian accounting standards.

Multiple regressions analysis finds that *firm's size* is significant for *inventory* compliance and *fixed assets* compliance with p-values of 0.03 and 0.01 ($p<0.05$). However, *firm's size* is not significant, for *depreciation* compliance. The results, for *inventory* compliance, support hypothesis 3 (*H3: size of firm*). Similarly, for *fixed assets* compliance, the results support hypothesis 3 (*H3: size of firm*).

These findings highlight the importance of the enforcement issue for firms listed on Jakarta Stock Exchange to comply with the regulator's rules. The goal is to enhance firms' exposure to stakeholders. The benefits derived from compliance with the Indonesian accounting standards could include a reduction in costs associated with agency costs. Analysis reveals a high level of 71.63% *inventory* compliance, 51.13% *fixed assets* compliance, and 99.69% *depreciation* compliance with accounting rules. Although

Indonesian firms may have complied with more than 50% of the key accounting rule provisions, regulatory intervention is still needed for making Indonesian firms fully comply with Indonesian accounting regulations. Such regulation might include sanctions as promulgated by multilateral financial organisations (World Bank 2005). To ensure public accountability regulation might be administered with enforcement power and vigorous to monitor (Tower 1993). The results show the government needs to play more roles in enforcement of accounting standards to ensure more efficient business operation. For example, this study finds the mean of *independent commissioners* (40.91%) and *independent audit committee* (30.99%) are less than 50% indicating government enforcement is important. This is consistent with La Porta, Lopez-de-Silanes and Shleifer (2004) who suggest the important of government enforcement roles in capital market, and suggest to the need for legal reform to support capital market development.

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