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**The Presence of Earnings Manipulation Incentive as a
Prerequisite for the Benefits of Higher-Quality Audit to be
Realized:
The Case of Indonesia[♦]**

Zaki Baridwan
Professor of Accounting
Universitas Gadjah Mada, Indonesia
zakibaridwan@ugm.ac.id

Arie Rahayu Hariani^{*}
(Alumnus) Universitas Gadjah Mada, Indonesia
arierahayu@yahoo.com

[♦] Bidang kajian paper: auditing

^{*} Corresponding author.

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Abstract

This paper examines the interaction between the incentive that drives earnings manipulation and the audit quality that limits it. The interesting notion is that accountants tend to overlook the incentive while overemphasizing on audit. For example: accountants love to prescribe a higher standard for audit quality everytime a financial scandal occurs.

Evidence supports our hypothesis that even the benefits of higher-quality audit could be realized *only if* the earnings manipulation exists at the first place. Sadly, not only the incentive is a more superior variable compared to audit in determining the occurrence of or attempts to do earnings manipulation, it also could be easily perceived even before the audit itself were conducted.

Keywords: *audit quality, accounting manipulation, earnings manipulation incentive, logical flaw in accounting*

Data availability: *Data used in this study are available from public sources identified in the paper.*

I. INTRODUCTION

Audit were praised by accountants as an effective deterrent for accounting manipulation.¹ It is for that reason they love to prescribe audit quality improvement for any accounting manipulation related case (e.g. Levitt, 1998). While we cannot know what is the optimum level of audit quality, it seems everyone agree that we were not there yet. So, we seek ways to improve audit quality like continuing professional education (CPE), mandatory auditor rotation, increasing the authority of audit committee, etc.

Audit was made as a mean to verify the conformity of financial statements to generally accepted accounting principles (GAAP), while nonconformity itself could be viewed as an accounting manipulation. Logically, higher-quality audit will be more effective in deterring accounting manipulation. Previous studies give empirical support to this notion (Becker et al., 1998; Francis et al., 1999).

There is something interesting in the notion that higher-quality audit will be more effective in deterring accounting manipulation is interesting. It assumed that there is an accounting manipulation at the first place. How about if there were not?

Lo (2007) said that management do not always manipulate earnings even if they could. The presumption is that people generally do not commit crimes for no specific reason. Management needs an incentive to manipulate earnings before

¹ Audit were usually said to be an earnings manipulation deterrent by accountants in general. This is wrong because earnings manipulation could be achieved either by accounting or real activities manipulation while audit only concerns the accounting part.

they decided to do so. If there were no incentive then management would not manipulate earnings.

Previous studies confirm the idea that management needs an incentive in order to manipulate earnings. It means that firms which do not have such incentive would not manipulate earnings. Burgstahler and Dichev (1997) and Roychowdhury (2006) give empirical supports to this idea. They found that firms which suspected for avoiding earnings decrease or loss reporting have larger earnings manipulation measures than other firms.

The initial argument is that higher-quality audit would be better in deterring accounting manipulation. Unfortunately (or fortunately?), firms do not always manipulate their earnings nor to make such attempt. It means that the benefits of higher-quality audit does not always could be realized. Thus, it is not always worth the cost and effort to engage in higher-quality audit (as depicted in Figure 1).

[FIGURE 1]

In the meantime, we aware that earnings manipulation could also be attempted by manipulating real activities like timing the discretionary expenditures so that the earnings would look good (Baber et al., 1991; Bushee, 1998; Mizik and Jacobson, 2007; Roychowdhury, 2006). If accounting manipulation is constrained due to the presence of higher-quality audit, then firms will seek ways to postpone its discretionary expenditures. This accounting and real activities manipulation trade-off has concerned some researchers this days (Cohen et al., 2008; Cohen and Zarowin, 2008).

This paper contributes to the literature by presenting evidence on the two factors (i.e. audit quality, earnings manipulation incentives) that contradicts each other in influencing accounting manipulation. We found that the absence of earnings manipulation incentives negates the benefits that should be realized from higher-quality audit. Thus, questioning the endless attempts made to improve audit quality.

II. HYPOTHESES DEVELOPMENT

Audit is defined as (Accounting Review 47 in Boynton et al., 2001)

a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events **to ascertain the degree of correspondence between those assertions and established criteria** and communicating the results to interested users. [emphasis added]

The phrase "...to ascertain the degree of correspondence between those assertions and established criteria..." implied that it is auditor's duty to find accounting manipulation if it exists. Thus, by definition, higher-quality audit will be more effective in deterring accounting manipulation.

We use discretionary accruals (Jones, 1991) as a proxy for accounting manipulation. Discretionary accruals is the deviation of the normal or expected accruals estimated by Jones model. Positive discretionary accruals indicates an earnings inflation, *vice versa*.

Meanwhile, audit quality is expected to vary with the auditor quality. The common notion is Big 4 give higher-quality audit than nonBig 4. This notion

based on two assumptions. First, Big 4 have more experts and better supervision system than nonBig-4. It will enable them to find accounting manipulation if exists. Second, Big 4 have bigger reputation and thus, have much more to lose if they got sued in financial reporting (e.g. earnings) manipulation case. It will make them report the earnings manipulation when they find it. Simply, it make them more independent. (DeAngelo, 1981 in Watts and Zimmerman, 1978). Previous studies (Becker et al., 1998; Francis et al., 1999) found that Big 4 clients have smaller discretionary accruals than nonBig 4.

The idea that higher-quality audit will be more effective in deterring earnings manipulation need the earnings manipulation to be occurred at first place for the idea itself could exist. The absence of earnings manipulation could be mean the absence of the higher-quality audit benefits. In other words, if there is no earnings manipulation occurred then firms (thus, the society in general) are better-off to hire lower-quality auditor since this auditor will give the same result as the higher-quality auditor yet with lower cost/fee.²

Turns out that it is pretty easy to predict whether management would attempt to manipulate earnings or not. We only need to see the presence of earnings manipulation incentives to predict the occurrence of earnings manipulation (Lo, 2007). Burgstahler and Dichev (1997) found that firms that have incentive for avoiding loss or earnings decrease reporting are indeed inflating their earnings.

² Yet, it is not what the firms concerned about when they hire Big 4. Image and reputation on the market is all what they care since it is a common notion that Big 4 deliver higher-quality audit.

H1: Big 4 clients have smaller discretionary accruals than nonBig 4 client. Yet this difference could only be found on firms that have incentives to manipulate earnings, not on those who haven't.

Audit might deter accounting manipulation but it did nothing to the (earnings manipulation) incentives. As predicted, management who can not manipulate earnings through accounting will do it another way. One of the most popular nonaccounting manipulation attempt is timing the discretionary expenditures (Baber et al., 1991; Bushee, 1998; Cohen et al., 2008; Cohen and Zarowin, 2008; Mizik and Jacobson, 2007; Roychowdhury 2006).

We use abnormal discretionary expenditure as a proxy for discretionary expenditure manipulation. If the abnormal discretionary expenditure is negative then it means that firms reduce or postpone their expenditures to the coming year.

H2: Big 4 clients have smaller abnormal discretionary expenditures than nonBig 4. Yet, this difference occurred only on firms that have incentives to manipulate earnings, not to those that haven't.

III. RESEARCH METHOD

Data and Sample Description

We initially sample all firms in Osiris database between 2003-2007 with sufficient financial data available to computer the variables for every firm-year. While data

on auditor dichotomy (Big 4 – nonBig 4) is available on independent auditor’s report from the JSX database or the Bursa Efek Indonesia (BEI) website (www.idx.co.id). We then eliminate banks and financial institutions from our sample using classification on Indonesian Capital Market Directory (ICMD) as a base.

We require at least 8 observations for each industry-year grouping. Due to the limitation of the data concerning this requirement, we combine several industries with their closest counterparts. We also impose the all-data-availability requirement (balanced panel model) resulting about 138-142 firms over the 2003-2007 period.

Variables and Measurement

Estimating discretionary accruals

We measure discretionary accruals using the cross-sectional version of Jones (1991) accruals estimation model. We make one change though, we add an unscaled intercept, α_0 , to the model. This change is needed for the results to be comparable with the results of Roychowdhury (2006) abnormal discretionary expenditures model. Specifically, discretionary accruals are estimated from the following model:

$$TA_{it}/A_{it-1} = \alpha_0 + \alpha_i [1/A_{it-1}] + \beta_{1i} [\Delta REV_{it}/A_{it-1}] + \beta_{2i} [PPE_{it}/A_{it-1}] + \epsilon_{it} \quad (1)$$

where:

TA_{it}	= total accruals in year t for firm i ,
ΔREV_{it}	= revenues in year t less revenues in year $t-1$ for firm i ,
PPE_{it}	= gross property, plant, and equipment in year t for firm i ,
A_{it-1}	= total assets in year $t-1$ for firm i ,
ϵ_{it}	= error term in year t for firm i ,
i	= 1, ..., N firm index
t	= 1, ..., T_i year index

Estimating abnormal discretionary expenditures

We use Roychowdhury (2006) model to estimate the abnormal discretionary expenditures. Based on Dechow et al., (1998) assumption, discretionary expenditures should be a linear function of contemporaneous sales. This creates a problem: if firm manage sales upward to increase earnings in any year (particularly in the suspect year), they can exhibit unusually low residuals in that year even when they do not reduce discretionary expenses. To avoid this problem, discretionary expenses are expressed as a function of lagged sales.

$$DISEXP_t / A_{t-1} = \alpha_0 + \alpha_1 (1/A_{t-1}) + \beta (S_t / A_{t-1}) + \epsilon_t \quad (2)$$

where

$ABDISEXP_t$	=	discretionary expenses in year t ,
S_t	=	sales in year t .

Selection of suspect firm-years

We use avoidance of reporting losses and/or earnings decrease for the earnings manipulation motives and suspect firms having that motive for manipulating earnings. The firm-year is suspected if it has

- net income scaled by total assets that is greater than or equal to zero but less than 0.005. These firm-years are suspected to avoid reporting loss (Roychowdhury, 2006).

- change in net income scaled by total assets that is greater than or equal to zero but less than 0.005. These firm-years are suspected to avoid reporting earnings decrease (Cohen et al., 2008).

Audit quality

We use the Big 4 - nonBig 4 dichotomy for the audit quality proxy. We assume that Big 4 provides higher-quality audits than nonBig 4. Previous studies show empirical supports for this notion (Becker et al., 1998; Francis et al., 1999; Francis, 2004).

Performance

Dechow et al. (1995) highlights the importance of controlling financial performance when investigating earnings management stimuli/incentive that are correlated with financial performance. Since we use the avoidance of reporting loss and earnings decrease which is clearly correlated with financial performance as the earnings management incentives, therefore we have to control financial performance in this research. We use net income scaled by total assets, a common proxy for financial performance, as a control variable.

Hypothesis Testing

We estimate the following regression to test H1 and H2

$$Y_t = \alpha + \beta_1 SUSPECT + \beta_2 BIG4 + \beta_3 SUSPECT * BIG4 + \beta_4 NI \quad (3)$$

where:

Y_t = the dependent variable that is sequentially set to discretionary

accruals (DACCR) estimated by the Jones Model described
previously and abnormal discretionary expenditures
(ABNDISEXP) estimated by Roychowdhury Model (2006),

SUSPECT = dummy variable equal to 1 if the firm year is suspected,
BIG4 = dummy variable equal to 1 if the auditor is Big 4,
NI = net income scaled by total assets.

The hypotheses predict that the coefficient on *SUSPECT***BIG4* should be negative with either discretionary accruals (H1) or abnormal discretionary expense (H2) as the dependent variables.

IV. RESULTS

Descriptive Statistics

Table 1 suggests that the Big 4 firms tend to be substantially larger than the nonBig 4 firms. The mean of total assets for the Big 4 sample is Rp3 trillion compared to Rp1 trillion for the nonBig 4 sample and mean earnings is Rp200 billion compared to about Rp8.5 billion for the nonBig 4 sample. This statistics suggests that, in general, the character of the data used in this study is not different than that of previous studies (Becker et al., 1998; Francis et al., 1999).

[TABLE 1]

Hypothesis Testing

Table 2 presents the results of regression (3). Our hypotheses predict that coefficient on SUSPECT*BIG4 should be negative with either discretionary accruals (H1) or abnormal discretionary expenses (H2) as the dependent variable. We test both hypotheses on two groups, earnings decrease avoidance and loss avoidance, differ only on the suspect firm-years classification criteria.

We find only the result of H1 testing on the earnings decrease avoidance group which supports the hypothesis while the three others do not. The coefficient of discretionary accruals on SUSPECT*BIG4 is negative, -0.048, on the earnings decrease avoidance group. This means that the effectiveness of higher-quality audit in deterring accounting manipulation requires the presence of earnings manipulation incentive for the benefits to be realized.

[TABLE 2]

The coefficient of abnormal discretionary expense on SUSPECT*BIG4 is positive, 0.0303, on earnings decrease avoidance group when it should have been negative according to H2. It partially conform the hypothesis in term that the benefits of audit quality difference could only be realized in the suspect firm group. On the other side, this result shows that auditor could deter real activities manipulation while theoretically they would not bother about it at all.

Both of the coefficients of discretionary accruals (H1) and abnormal discretionary expense (H2) on SUSPECT*BIG4 are not statistically significant in the loss avoidance group. The main effects, SUSPECT and BIG4, are still significant in both regression though. The coefficient of SUSPECT is positive,

0.019, with discretionary accruals as the dependent variable and negative, -0.01312, with abnormal discretionary expense as the dependent variable. These results conform the conventional hypothesis that suspect firm-years manipulate earnings in their favor while the nonsuspects do not.

The coefficient of BIG4 is negative, -0.0082, with discretionary accruals as the dependent variable on the loss avoidance group. It also conform the conventional hypothesis that higher-quality auditors are better in deterring earnings manipulation than the lower ones. Meanwhile, the coefficient of BIG4 is positive, 0.0175, with abnormal discretionary expense as the dependent variable on the loss avoidance group. It means that BIG4 deters real earnings manipulation better than nonBig4. As in the H2 testing on earnings decrease avoidance, this is rather strange because, theoretically, auditors should not be bothered by the real activities manipulation nor will they deter it.

Discussion

There are two interesting facts from the results. First, only interactions in earnings decrease avoidance group that are significant. Interactions in loss avoidance group are not significant but their main effects are. Second, all BIG4 or BIG4-related interpretation with abnormal discretionary expense as the dependent variable on all hypothesis testing mimic the same interpretation of their discretionary accruals counterparts.

The fact that only interactions on earnings decrease avoidance group that are significant while the same interactions on loss avoidance group are not significant

is interesting because those two groups differ only on suspect firm-years selection criteria. It seems that earnings decrease avoidance is a more superior classification than loss avoidance. Our hypothetical answer is that Big 4 becoming much more conservative when its client is suspected for avoiding earnings decrease (i.e. income smoothing) than for avoiding loss.

It is that conservative attitude that make Big 4 clients which suspected for avoiding earnings decrease have the lowest discretionary accruals of all firms. This condition contributes largely to the difference of Big 4-nonBig 4 suspected clients' discretionary accruals on the earnings decrease avoidance group while there is no difference on their nonsuspected clients. When we change the classification into loss avoidance, this former earnings decrease avoidance suspected Big 4 clients group became distributed into the new loss avoidance suspected and nonsuspected Big 4 clients group. This earnings decrease avoidance suspected Big 4 group so superior they make the whole loss avoidance Big 4 group (not only the suspected Big 4) better than the nonBig 4, hence gone the interactions.

Why do Big 4 become much more conservative when its client is suspected for avoiding earnings decrease (i.e. income smoothing)? We suspect it is because an income smoothing case revealed can led to a litigation against the auditor. The litigation, in turn, will hurt the auditor's reputation and so does its market share. The worst case happened recently is Arthur Andersen LLP which, despite its lawyer's success before the Supreme Court of the United States in the Enron

matter, had its reputation being to damaged to continue as a firm and it is no longer viable as a business.

Meanwhile, the second fact could only mean one thing: the abnormal discretionary expense do not represent real activities manipulation as it should, rather it represents an accounting manipulation. Suspect firm-years might attempt to capitalize discretionary expenditures when it should be expensed. It is why Big 4 auditors could deter the manipulation attempts better than nonBig 4.

IV. CONCLUSION

This paper complements the auditing literature in several ways. First, it shows that the benefits of higher audit quality, and hence of audit itself, in deterring earnings manipulation could only be realized if there is an earnings management incentive at the first place. Second, it shows that the incentives could be easily seen or detected by auditor or any regulating bodies if they want to. These two facts make the audit obligation for all firms seems like a simple yet ironic logical flaw. Third, it suggests that auditors needed a more serious legal obligation for them to be more independent. This makes us think what would it like if an auditor does not have a legal obligation as it is in Indonesia.

It brings us an irony, many firms who have no earnings manipulation incentives and thus have no attempt to manipulate earnings, hire a higher-quality auditor in order to have a higher-quality audit with higher cost embedded in it while actually the audit gives no real benefit to the firm.

Overall, this paper results suggest that there is a systemic problem in our reporting system. First, the paper showed that earnings manipulation incentive is a more superior factor than audit in determining earnings manipulation occurrences and attempts. Yet we seldom hear the standard setters or even academician discussing it.

Second, the paper suggest that audit should not be mandatory to all firms but the ones who suspected for manipulating earnings. If only the same resources previously spent on mandatory audit to all firms were used and directed only on firms that were suspected for manipulating earnings, it would mean a more effective financial statement monitoring and enforcement mechanism. Yet again, this is not the case.

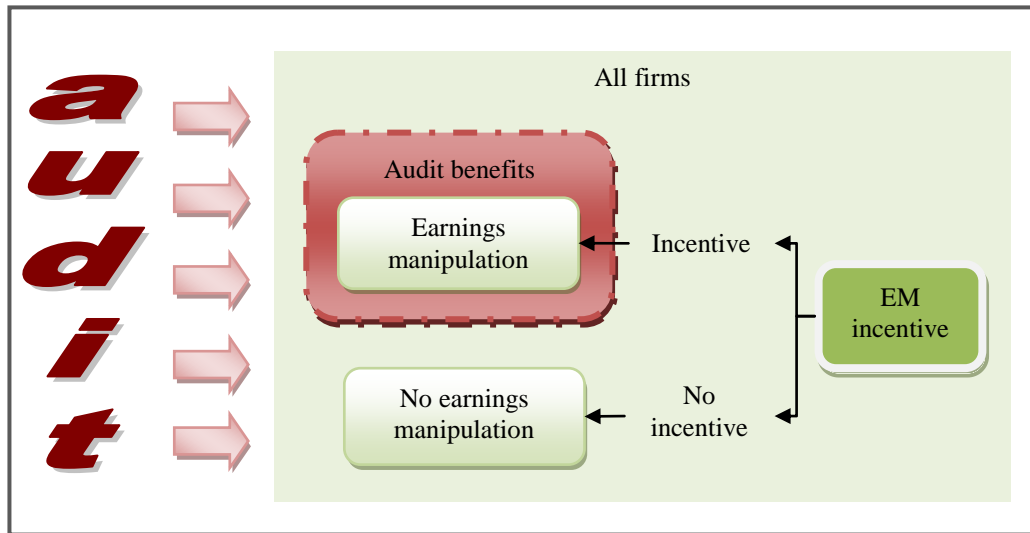
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APPENDIX 1: FIGURE

Figure 1

Audit Quality, Earnings Manipulation (EM), and EM Incentives



APPENDIX 2: TABLES

Table 1

Big 4 vs. NonBig 4

Variable	Mean		<i>p-value*</i>
	(in thousands rupiah except for ratio)		
	Big 4 (n = 361)	nonBig 4 (n = 334)	
Total assets	3.000.000.000	1.000.000.000	0,000
Net income	200.000.000	8.428.475	0,000
Net income/total assets	0,0600	-0,0038	0,000

♣ Independent-samples *t* test.

Table 2

Results of Hypothesis Testing

Indp.\Dep. Variable	Earnings Decrease Avoidance		Loss Avoidance	
	DACCR (H1)	ABNDISEXP (H2)	DACCR (H1)	ABNDISEXP (H2)
Constant	-0.004294	-0.011263***	-0.002737	-0.011368***
SUSPECT	0.006767	-0.011103**	0.018969**	-0.013117***
BIG4	-0.003766	0.018589***	-0.008163**	0.017498***
SUSPECT*BIG4	-0.048157***	0.030272***	-0.038670	-0.000675
NI	0.188550***	-0.041510***	0.206950***	-0.038165**

*Significant at 10%. **Significant at 5%. ***Significant at 1%.

DACCR = discretionary accruals, estimated from

$$\frac{TA_{it}}{A_{it-1}} = \alpha_0 + \alpha_i \left[\frac{1}{A_{it-1}} \right] + \beta_{1i} \left[\frac{\Delta REV_{it}}{A_{it-1}} \right] + \beta_{2i} \left[\frac{PPE_{it}}{A_{it-1}} \right] + \epsilon_{it}$$

ABNDISEXP = abnormal discretionary expense, estimated from

$$\frac{DISEXP_t}{A_{t-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{A_{t-1}} \right) + \beta \left(\frac{S_{t-1}}{A_{t-1}} \right) + \epsilon_t$$

SUSPECT = firm-years suspected for manipulating earnings; labeled 1 if it were suspected, 0 if it were not

BIG 4 = dummy variable equals to 1 if the auditor is Big 4

NI = net income scaled by total assets