The Role of Earnings Management in Relation between Tax Avoidance and Investor Reaction: The Case of Indonesia

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Abstract-*The research aims at examining the role of earnings management in relation between tax avoidance and investor reaction in Indonesia. This study investigated how the earnings management as a basis of management on tax avoidance has an effect for investor reaction. The population of this research covers the entire corporate registered in The Indonesian Stock Exchange from 2009 to 2012. The sample of this research refer to the manufacturing company which was assumed avoiding tax. Total samples are 80 companies. Purposive sampling method is used in this research and Structural Equation Modeling (SEM) with program of WarpPLS 4.0 version is utilized in analyzing and testing hypothesis. This research is also offering a new measurement for tax avoidance, is tax avoidance rate (TAR). Tax avoidance rate (TAR) can be used to knows how much tax avoidance conducted by company. The findings showed that tax avoidance have direct and indirect effect to the investor reaction. Earnings management mediates the relation of tax avoidance and investor reaction. This result evinced that tax avoidance and earnings management are as signal for investor who will influence their investment decision. Investor can assess whether tax avoidance conducted by company for company's interest or as the tool in doing the earnings management.*

Keywords- *Tax avoidance; investor reaction; earnings management*

1. INTRODUCTION

An opinion stated that tax paid is the wealth transfer from corporate to shareholder Watts and Zimmerman [1] has caused shareholder encourage management to be more aggressive for the tax which can tend to the tax avoidance action. Tax avoidance conducted can increase the corporate cash flow and add the corporate wealth, so it can increase welfare of shareholder. Manager action to minimize tax obligation is considered as more important of corporate activities, so tax avoidance in corporate would be widely spreading [2]. Several studies have shown an increase in the activities undertaken corporate tax avoidance. [3], [4], [5].

Although, tax avoidance conducted by corporate can give profit for shareholder, but the prior study on tax avoidance for investor reaction showed the existing of significant result variation. Desai and Hines [6]; Hanlon and Slemrod [7] reported that tax avoidance conducted by corporate has negative effect for investor reaction. On other side, Desai, et al. [8]; Desai and Dharmapala [2]; Blaylock, et al. [9] reported that tax avoidance conducted by company has a positive effect for investor reaction. However, Weber [10] reported that tax avoidance

conducted by the company has no effect for investor reaction.

Desai and Dharmapala [2], said "There are two opinions as references to know whether tax avoidance conducted by company has a value for investor." The first view stated the cost would exist if the company engages in tax avoidance. The second view is based on agency theory. The tax avoidance conducted by company can be used by opportunistic manager for rent-seeking.

Slemrod [11]; Chen and Chu [12]; and Crocker and Slemrod [13] prove the relationship of tax avoidance and agency problem inherent in public companies. Conflicts of interest and asymmetric information in the companies can provide an opportunity for management to choose the method of accounting policy for personal interests that earnings management.

Shareholders expect that manager action on behalf their name focusing on earnings maximization includes to seek opportunities to reduce tax obligation. However, the tax avoidance conducted by company can raise a question whether it is for shareholder? Does tax avoidance produce the wealth transfer from government to shareholder as like assumption of prior financial literature about tax effects of taking company financial decision?

Tax avoidance problems had been happened in other countries and also in Indonesia. Related with this problems, Jusuf Anwar (Former Financial Minister of Republic Indonesia) stated that 750 (seven hundred and fifty) companies of Foreign Investment have reported the loss and not paid corporate income tax during 5 years respectively and even longer than 5 years (Tempo 2003). Before this, Head of Capital Investment Coordinating Board (BKPM) Theo F. Toemion stated that there is about 70% companies of Foreign Investment didn't pay the tax because their financial statement indicating the loss (Kompas, 2002).

Based on the fact that weak tax regulation and government controlling can be concluded that opportunities for tax avoidance in Indonesia would be greater [14]. Then the question is, "whether this situation used by Indonesian company to do tax avoidance?" If so, the following question is whether this activities give benefit for company, is the tax avoidance conducted by company only as buffer for earnings management, how the investor reaction toward these problems. It is very interesting phenomenon to investigate.

This research investigates how tax avoidance effect for investor reaction in Indonesia. It uses the earnings management as mediation variable. This was caused by the existing of tax avoidance relationship with inherent agency problems on public-owned enterprises. Tax avoidance should increase the wealth of shareholder, but it becomes the buffer of manager in earnings management.

This research is also offering a new measurement for tax avoidance, this is tax avoidance rate. Tax avoidance rate can be used to look how much tax avoidance conducted by company.

The findings showed that tax avoidance have directly and indirectly positive effect on investor reaction. Earnings management mediates tax avoidance and investor reaction. This study documents that tax avoidance and earnings management are as signal for investor who will influence their investment decision. Investor can assess whether tax avoidance conducted by company for company's interest or as the tool in doing the earnings management.

The structure of the paper is organized in the following way. Section II discusses hypotheses development. Section III describes our data and research design, Section IV presents our empirical results, and Section IV deals with conclusions.

2. HYPOTHESES DEVELOPMENT

2.1 Tax Avoidance and Investor Reaction

Political cost theory assumed that tax is the wealth transfer from company to government[1] so tax avoidance conducted by company can be meant as the wealth transfer from government to shareholder [2].

Companies which replace methods for assessing inventories and fixed assets depreciation for reasons of taxation that replace become the method that makes the smaller tax payments received positive reaction from investors when the company announced a change in the method. Investors ignore lower book earnings but appreciate the benefits of taxation of the adoption of the new method [15-19]

Blaylock, et al. [9], found that company has big differences between tax earnings book caused by tax avoidance to be positively responded by market. This result research showed that investor can see the big differences source of tax earnings book is from earnings management or tax avoidance.

Tax avoidance conducted by company can be meant as a signal to investor that the company promotes the interests of shareholders. If manager did tax avoidance optimally and investors have to believe in the tax avoidance, then it should be occurs a positive relationship between tax avoidance and company value or investor reaction. Their hypotheses, which we will re-examine, are:

H1: Tax avoidance positively has an effect for investor reaction.

2.2 Tax Avoidance and Earnings Management

The relationship between tax avoidance and agency theory related to the inherent problems in public companies had been introduced by Slemrod [11]; Chen and Chu [12]; Crocker and Slemrod [13]. Separation of ownership to public enterprises raising the conflict interest and asymmetry information can give opportunity for management to use accounting method and policy for self-interest. The tax avoidance conducted by company would be buffer for management in earnings management.

Researchers evidenced that several methods used by company to do tax avoidance have the main goal to do earnings management [20-29]. Following them we hypothesis:

H2: Tax avoidance positively has an effect for earnings management.

2.3 Earnings Management and Investor Reaction

Based on signaling theory, accounting information was expected as the signal which can reduce asymmetry information between management and investor reflected in share price. Investor will manage all information sent by company for their investment decision.

Earnings management makes information provided by the manager not correspond to the actual condition of the company. Earnings management conducted by the management to personal interest may mislead shareholders about the economic performance of the organization [30].

Earnings management conducted by company can become the signal used by investor to assess how manager manages the company. Some research evidenced the earnings management conducted by company negatively has an effects for investor reaction [31-33]. The following hypothesis will be therefore tested.

H3: Earnings management negatively has an effect for investor reaction.

2.4 Tax Avoidance, Earnings Management and Investor Reaction

Relationship between tax avoidance and agency theory are caused by separation between ownership and controlling to the company owned by public. This agency problem gives opportunity for management to use accounting method and policy.

At a public company there are separation between owners and managers, who can be described in agency theory. Conflict of interest and asymmetric information in the company can provide an opportunity for management to make a selection or method of accounting policies for the purpose of personal interest.

The existence of the agency problem can lead to tax avoidance activities as the shield to perform a managerial opportunism in earnings management [2]

Desai, et al. [8], pointed out that self-interested manager would facilitate the transaction reducing company tax and transfers company resources to use for self-using. Some researchers, such asGuenther [20]; Mills [21]; Schrand and Wong [22]; Phillips, et al. [23]; Desai [24]; Dhaliwal, et al. [25]; Hanlon [26]; Frank and Rego [27]; Cook, et al. [28]; [Blouin, et al. [29]] evidenced that some methods used by company to do tax avoidance has the main goals to do earnings management. Tax avoidance should increase the wealth of shareholder after related with agency issues result in tax avoidance conducted by the company become as buffer for manager and to do by the company to become as buffer for manager in doing earnings management. We, therefore expect that earnings management mediate relationship between tax avoidance toward investor reaction.

H4: Earnings management mediates relationship between tax avoidance toward investor reaction.
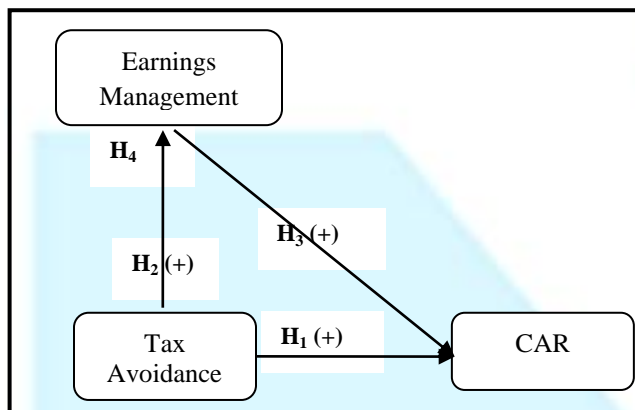

Figure 1. Empirical Research Model

3. DATA AND RESEARCH DESIGN

Research populations are overall companies listed on Indonesian Stock Exchange during 2009 until 2012. The sample used is manufacturing company which assumed to do tax avoidance. Total samples are 80 companies consisting of 20 in 2009, 21 in 2010, 18 in 2011, and 21 in 2012. Hypothesis test was conducted by using program of WarpPLSversi 4.0.

Table 1. Resume of Definition and Measurement of Variable

Variable	Measurement
Eogenous Tax Avoidance	Tax avoidance Rate = Prevailing Tax rate Regulation –effective tax rate. In 2009, the prevailing tax rate regulation is 28%, 25% in 2010-2012
Endogenous Cumulative Abnormal Return	The steps: Events periods are 12 months starting from third month after accounting year Estimation period is 24 months Estimating normal return of each security with using market model: $R_{i,t} = \alpha_i + \beta_{i,t} . R_{M,t} + \varepsilon_{i,t}$ Whrere $R_{i,t}$ is expected return on security, $\beta_{i,t}$ is beta coefficient for security, $RM_{i,t}$ is the expected return on the market portfolio To seek abnormal return of each security is differences or actual return with estimation return: $AR_{i,t} = R_{i,t} - E(R_{i,t})$ Where $AR_{i,t}$ is Abnormal return, $R_{i,t}$ is actual retun, $E(R_{i,t})$ is ecpected return. CAR= Cumulative abnormal return of each share during 12 months starting from third month after accounting year is finished $CAR_{(ti,tp)i,t} = \sum_{t1 \to tp} AR_{i,t}$ Where $CAR_{(ti,tp)i,t}$ is cumulative abnormal return, $AR_{i,t}$ is Abnormal return.
Mediation Accrual Earnings Management Discretionary of accrual modifies Jones	The steps Determining total accrual: $TAcc_{it} = NI_{it} - CFO_{it}$ Where $TAcc_{it}$ is total accrual, NI_{it} is net income, CFO_{it} is cashflow from operation Creating an equation of Total Accrual Normal= $(TAcc_{it}/A_{it-1}) = \alpha_0 + \alpha_i (1/ A_{it-1}) + \alpha_2 [(\Delta REV_{it}/A_{it-1}) - (\Delta REC_{it}/A_{it-1})] + \alpha_3 (PPE_{it}/A_{it-1}) + \varepsilon_{i,t}$ Where $TAcc_{it}$ is total accrual, A_{it-1} is total asset, REV_t is total Revenue, $\Delta REV_{it} = REV_t - REV_{t-1}$, REC_{it} is receivable, $\Delta REC_{it} = REC_t - REC_{t-1}$, PPE_{it} is property plan and equipment Computing Discretionary accrual for equation residual value of total accrual normal above.

4. RESULT

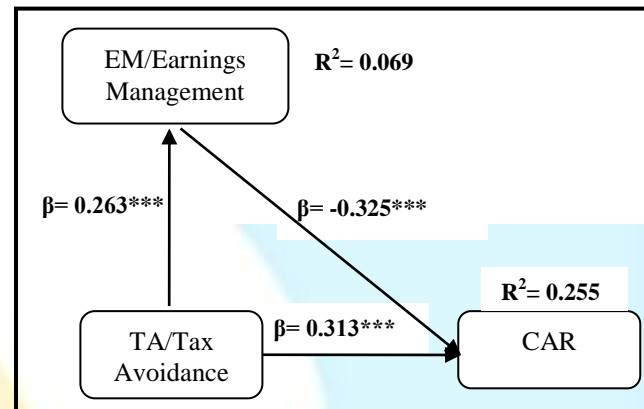Test result of full model for this research by WarpPLS 4.0 was presented in *Figure 2*, *Table 2* and *Table 3*. Based on

output model fit and quality indices model direct effect _Table 2_ has value of APC=0.395, P<0.001, ARS=0.156, P=0.015, AARS=0.145, P=0.020, AFVIF=1.011, and GoF=0.395. Based on output model fit and quality indices model indirect effect _Table 3_ has value of APC=0.300, P=0.001, ARS=0.162, P=0.013, AARS=0.147, P=0.020, AVIF=1.068, AFVIF=1.129, and GoF=0.403. Determination of WarpPLS stated that ρ value for APC and ARS must be less than 0.05 (significant). Values of AVIF and AFVIF as multicolinearity indicator must be less than 5 with determination for GoF value is small≥ 0.1, medium≥ 0.25, large≥0.36. Referring to the determinations can be concluded that this research model are fit.

Table 2. Output WarpPLS 4.0-Direct Effect

Model Fit and Quality Indices
APC=0.395, P<0.001
ARS=0.156, P=0.015
AARS=0.145, P=0.020
AFVIF=1.011, acceptable if <= 5, ideally <= 3.3
GoF=0.395, small >= 0.1, medium >= 0.25, large >= 0.36
Path Coefisiens dan ρ-_value_ :
TA → CAR   0.395   ρ<0.001
R-_Squared_:
TA → CAR   0.156
Effect Size:
TA → CAR   0.156

Table 3. WarpPLS 4.0-Indirect Effect

Model Fit and Quality Indices
APC=0.300, P<0.001
ARS=0.162, P=0.013
AARS=0.147, P=0.020
AVIF=1.068, _acceptable if <= 5, ideally <= 3.3_
AFVIF=1.129, _acceptable if <= 5, ideally <= 3.3_
GoF=0.403, _small >= 0.1, medium >= 0.25, large >= 0.36_

Path Coefisiens dan ρ-_value_ :

TA → CAR	0.313	ρ<0.001	
TA → EM	0.263	ρ=0.001	
EM → CAR	-0.325	ρ<0.001	

R^2:	Q^2	Full Collin. VIF	CAR
0.255	0.255	1.188	
EM	0.069	0.072	1.178

Effect Size:

TA → CAR 0.124

TA → EM   0.069

EM → CAR 0.132

Indirect Effect

TA → CAR   -0.085 ρ=0.074

Figure 2. Output WarpPLS 4.0-Indirect Effect

From _Figure 2_ showed the path coefficient and ρ value from every direct correlation in this research model. Path of TA→CAR showed 0.313 coefficient value and significant with value of ρ<0.001.Path of TA→EM showed 0.263 coefficient value and significant with value of ρ= 0.001. Path of EM→CAR showed -0.325 coefficient value and significant with value of ρ<0.001.

Test result showed R^2 value of each endogenous variable is 25.5% (CAR), 6.9% (EM). This research model has predictive relevance because having higher Q^2 value than 0. Based on value of Full collinearity VIF existing under 3.3 showed in the research model not existing multicollinearity.

Table 4 Resume Of Hypothesis Test

Hypothesis	Conclusion
Hypothesis 1: Tax Avoidance (TA) positively has an effect for Investor Reaction (CAR)	Hypothesis Accepted
Hypothesis 2: Tax Avoidance positively has an effect for Earnings Management	Hypothesis Accepted
Hypothesis 3: Earnings management negatively has an effect for Investor Reaction (CAR)	Hypothesis Accepted
Hypothesis 4: Earnings management mediates relationship between Tax Avoidance with Investor Reaction (CAR)	Hypothesis Accepted

5. CONCLUSIONS

The findings showed that tax avoidance have directly and indirectly positive effect on investor reaction. Earnings management mediates tax avoidance and investor reaction. This study documents that tax avoidance and earnings management are as signal for investor who will influence their investment decision. Investor can assess whether tax

avoidance conducted by company for company's interest or as the tool in doing the earnings management.

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