

The Effect Of Leverage And Earning Per Share On Earning Management (A Study Of Companies Listed In Indonesia Stock Exchange)

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Abstract. This study investigates the relationship between leverages, earning per share (EPS) and earning management. Using discretionary accrual as a proxy for earning management. For measuring Accrual Earning Management (AEM), revenue discretionary model and revenue model (model stubben) are used in the study. The sampling technique used purposive sampling and a regression method for panel data, namely fixed effect based on the Hausman test result. Panel data regression models are applied for the period from 2016-2018 on a sample size of 31 companies listed on Indonesia stock exchange, taking LQ 45 index as a benchmark. The data analysis testing employed Eviews (Econometric View). The result showed leverage affect on the earning management negatively and earning per share (EPS) affect on the earning management positively.

Keyword : Leverage, Earning Per Share, Earning Management, LQ 45, IDX

1. Introduction

Managers emphasize the importance of increase in earning in the opening line of the management discussion section of the annual report [1][2]. Manager allowed to increase the value of accounting as a form of communication. Otherwise, they create opportunities for “earning management”. Which select reporting method and estimates that match the firm’s business economics. This study replicates previous research on earning management. Thus diverse result indicate research gap. Therefore, further research is needed to examine the relationship between leverage and earning per share (EPS) to earnings management. There studied by Kadek Marlina, Sutrisno & Endang Mardiaty, 2019)[3] conclude that company have high leverage tend to do earning management because the company is threatened with bankruptcy. Beside that the research on non bank companies listed in LQ 45 show that partially leverage have a positive effect on earning management (Joni Hendra, Heri Koesharjono & Seger Priantono, 2018). And than the composition of the board of directors, firm size and leverage negatively affect earned management[4]. Furthermore, earning per share (EPS) has a significant negative effect on earnings management[5]. Another research that Earning per Share (EPS) is significantly and positively influence the earning management at PT. Adhi Karya (Persero) Tbk [6].

2. Methodology

This study using purposive sampling method. The criteria include companies listed in LQ 45 of Indonesia Stock Exchange during 2016-2018 period three years in a row. During the period the companies financial & annual reports had been accessible and audited. Also a company using Indonesian Rupiah. This paper will use panel data regression using EVIEWS (Economic Views). Further, there are three types of models, common effect model (CE), fixed effect model (FE) and random effects model (RE) that have been estimated. The most appropriate model was chosen based on the characteristic of the data to answer the objectives of the study. The testing are Chow Test, Hausman Test, as follows:

a) Chow Test

H_0 : the models follow common effect. H_1 : model follow fixed effect. Decision: Decline H_0 if value of probability < 0. Conclusion : If H_0 rejected, fixed effect model better than common effect models

b) Hausman Test

H_0 : the models follow common effect. H_1 : model follow fixed effect. Decision : Decline H_0 if value of probability < 0. Conclusion : If H_0 rejected, fixed effect model better than common effect models

The panel data regression equation model in this study we may consider the following relation:

$$EM_{it} : \alpha + \beta_1 \text{Leverage}_{it} + \beta_2 \text{EPS}_{it} + e_{it}$$

Where :

EM_{it} = The indicator used to measure earning management for firm i in year t

α = constant

β_1, β_2 = regression coefficient

Leverage = The indicator used to measure learning management for firm i in year t

EPS = The indicator used to measure earning per share for firm i in year t

E = error term

In this study testing hypotheses used include testing regression coefficients together and partial regression coefficients. The research hypothesis will be accepted if β_i ($i = 1, 2, 3$) = 0: H_{01} accepted (H_{a1} decline). If there is at least one β_i ($i = 1, 2, 3$) $\neq 0$: H_{01} decline (H_{a1} accepted). H_{01} not decline (H_{a1} decline) meaning that the independent variables together do not affect the dependent variable, whereas H_{01} decline (H_a accepted) means that the independent variables jointly influence the dependent variable.

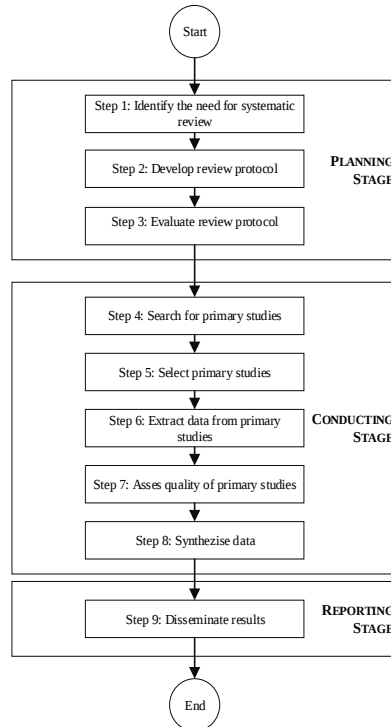


Fig.1. Systematic Review Diagram

Table 1. PICOC Criteria

Population	LQ 45 Index Company
Intervention	-
Comparison	a combination of cross-sectional studies with longitudinal studies (time series)
Outcomes	Answer the research hypothesis
Context	Company listed of LQ 45 Index

Table 2. Research Question (RQ)

ID	Research Question	Motivation
RQ1	Does leverage, earning per share effect simultaneously on earning management of LQ 45 in the Indonesia Stock Exchange.	To determine the effect of leverage, earning per share simultaneously on earning management of LQ 45 in the Indonesia Stock Exchange.
RQ2	Does leverage on earning management of LQ 45 in the Indonesia Stock	To determine the effect leverage on earning management of LQ 45 in

	Exchange.	the Indonesia Stock Exchange.
RQ3	Does earning per share on earning management of LQ 45 in the Indonesia Stock Exchange.	To determine the effect earning per share on earning management of LQ 45 in the Indonesia Stock Exchange.

This study used purposive sampling and panel data regression models are applied for the period from 2016 to 2018 on a sample size of 31 companies LQ 45 index listed on Indonesian Stock Exchange. The time horizon of the study is a combination of cross-sectional studies with longitudinal (time series). The data used in the study consisted of secondary data are obtained from the Indonesian Capital Market Directory-ICMD, IDX. Table 1 shows the PICOC design of the research question. The RQ in the literature review can be seen in Table 2. The mind map of the research question can be seen visually in Figure 2.

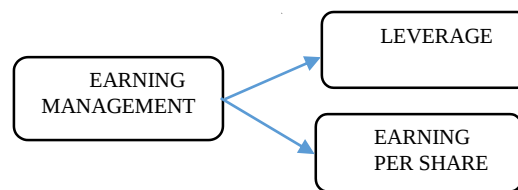


Fig.2. Mind map research question

3. Result and Discussion

Table 3. Result of Regression of Leverage and EPS on Earning Management

Variabel	Koefisien Regresi	Standar Error	t-Statistic	Prob.
Constanta	0.363664	0.083541	4.353148	0.0001
EPS	0.088859	0.148858	0.596942	0.5528
Leverage	-0.961207	0.243776	-3.942987	0.0002
R-Squared	0.615979			2.795092
Adjusted R-Square	0.411169			
F-Statistic	3.007552			
Prob. (F-Statistic)	0.000115			

The results of this study of regression of Leverage and Earning Per Share (EPS) on Earning Management of hypothesis testing are the answers to the hypothesis in this study. The Regression model used in this study was the random effect model. The inferential statistical results from random effect testing are as follows.

Based on table 3 it can be seen that constant variable is 0,363664. This constant value indicates that if leverage, earning per share and earning management are constant increase by 36%. Then, the Durbin Watson (DW) Statistic have a value of 2,795092 indicate negative autocorrelation.

Tabel 4. The result of Chow Test Result

Effect Test	Statistic	d.f	Prob
Cross-section F	2.801249	(30,60)	0.0003
Cross-section Chi Square	81.442788	30	0.0000

Based on Table 4 the probability value for cross-section F is 0.0003. This value indicates that the probability value is smaller than the value of $\alpha=0.05$ which means that the decision taken is to use the Fixed Effect Model.

Tabel 5. The result of Hausman Test Result

Test Summary	Chi-Sq.Statistic	Chi-Sq.d.f	Prob
Cross-section random	14.004473	2	0.0009

Based on Table 5 shows that the probability is 0.0009. This value is smaller than the value of $\alpha=0.05$ which means that Random Effect Model was not selected in this study, and the chosen model was the Fixed Effect Model.

3.1 The Results of the Simultaneous Hypothesis Testing

If there is at least one β_i ($i=1,2,3$) $\neq 0$, then the hypothesis is accepted. Based on regression testing, shows that the earning per share and leverage simultaneously have significant influence on earning management as it is indicated by the regression coefficient value for each variable are 0.088859 for EPS and -0.961207 for leverage.

3.2 The Results of the Partial Hypothesis Testing

3.2.1 Leverage on earning management

Table 3. shows that regression coefficient value of leverage is -0.961207, which means that regression coefficient value of leverage is not equal to zero (β_i). Based on hypothesis testing, the earning per share affects the earning management if $\beta_i \neq 0$. Thus, it can be concluded that leverage affects the earning management. Coefficient value: -0.961207 shows that each increase in leverage by 1%, it will reduce earnings management by -0.961207 assuming the earning per share variable is constant.

3.2.2 The Effect Earning per Share on Earning Management

Table 3. shows that regression coefficient value of earning per share is 0.088859. It means that regression coefficient value of earning per share is not equal to zero (β_i). Based on hypothesis testing, the earning per share affects the earning management if $\beta_i \neq 0$. Thus, it can be concluded that earning per share affects the earning management. Coefficient value: 0.088859 shows that each increase in EPS by 1%, it will increase earnings management by 0.088859 assuming the leverage variable is constant

4. Conclusion

Based on data analysis and hypotheses testing, the following conclusions are drawn: (i) leverage affects the earning management negatively; (ii) earning per share affects the earning management positively.

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