Employee Stock Option Plan (ESOP) Effect on Earnings Management  
*(Study on Companies Listed in Indonesia Stock Exchange 2015 - 2017)*

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ABSTRACT

This study aims to determine the effect of ESOP on earnings management. The populations of this study were all companies listed on the Indonesia Stock Exchange for the period 2015-2017. The sample was determined by purposive sampling technique and obtained 30 company’s annual reports as the sample. The data collection method used a secondary data documentation technique that was obtained from the website. Data analysis was performed by using panel data regression analysis. The results showed that the ESOP had no effect on Earnings Management.

**Keyword:** Employee Stock Option Plan, Earnings Management, Go Public Company

1. INTRODUCTION

Basically, the agency relationship described through agency theory explains that managers are contracted by shareholders to fulfill their interests. For this reason, managers are given the authority to manage the company in order to make the best decisions. This condition can lead to information asymmetry, where managers will know more about the company's internal information and prospects in the future compared to shareholders and other stakeholders (Trisnawati et al., 2015). The existence of information asymmetry can provide the opportunities for managers to take actions that maximize their personal benefits by taking earnings management actions. Richardson (1998) stated that there is a systematic relationship between information asymmetry and earnings management.

According to Scott (2012) earnings management is the choice of accounting policies by managers or actions that can affect earnings. Earnings management will make earnings not in accordance with the actual situation because the earnings displayed follow the manager's wishes (Syariati et al., 2017).

The purpose of managers taking an action is to provide a positive picture regarding company performance because financial reports are used as a reflection of the manager's ability and effectiveness in managing the company (Harris et al., 2019).

Cases related to earnings management actions are still being carried out until now, including in Indonesia, as experienced by PT Garuda Indonesia. The disclosure of the PT Garuda Indonesia case when Garuda Indonesia commissioners, namely Chairul Tanjung and Dony Oskaria doubted the increase in net profit of USD 809.85 obtained in 2018. After an investigation, it turned out that the increase in profit came from the recognition of income that should not have been recognized in the current year, but must be recognized as receivables, amounting to USD 239 million (Hartomo, 2019). Furthermore, Iskan (2019) revealed that what behind public companies is to manipulate financial reports, deceive the market so that stock prices rise, and politically, managers can pursue bonuses. Garuda Indonesia is a state-owned public company that has a bonus system for its management, where bonuses are given when the company makes a profit (Iskan, 2019).

The existence of the case above, can be a lesson to the company and shareholders, that they must be careful when providing compensation to employees and managers in the form of bonuses. Ross (1973) in Mitnick (2013) revealed that one of the tough problems faced by companies is the
selection of a compensation system that results in manager behavior consistent with shareholder interests. Jensen and Meckling (1976) suggested that a compensation system in the form of equity incentives can motivate managers to take actions consistent with shareholder interests, thereby reducing agency problems including earnings management.

In Indonesia, the provision of equity incentives is secured by the Employee Stock Option Plan (POSK/ESOP). ESOP is the granting of contractual rights or options to employees to buy company shares during a certain period of time and pay a predetermined price on the grant date. (Bapepam, 2002). The existence of ESOP provides benefits to the company because it can link the prosperity of employees with company value which impacts on shareholder wealth, so this can overcome agency problems (Oyer & Schaefer, 2005).

Previous research conducted by Essid (2012) and Hassen (2014) suggested that the existence of equity incentives can reduce earnings management actions. Essid (2012) found that executive stock options (ESO) reduce earnings management because stock options can be an efficient control mechanism. This study is supported by Hassen (2014), explained that the total executive compensation has a negative effect on the value of earnings management. This is because executives who have high compensation will be motivated to keep jobs in the company and thus avoid the risk of changeover.

In contrast to the studies above, several recent studies have doubted the effectiveness of equity incentives (Bebchuk and Fried, 2003; Chen et al., 2015; Shan and Ant, 2018), because in practice, it can lead to a series of conflicts between managers and shareholders, so that encourage executives to engage in management action for personal gain. Furthermore, Goldman & Slezak (2006) also stated that equity-based incentives or stock options represent a double-edged sword. On the one hand, it can motivate the productivity of managers, thereby increasing their performance. However, at the same time, it can also encourage managers to misrepresent performance to fulfill their personal interests by taking earnings management actions.

Earnings management actions are taken in the form of earnings manipulation by reducing the amount of profit before the implementation of ESOP (Liu et al., 2014; McAnally et al., 2008; Wu et al., 2012) and increasing the amount of profit after the application of ESOP (Asyik, 2006; Syariati et al., 2017). The profit manipulation action was carried out to influence the stock price so that before the ESOP was implemented the share price would decrease and stock options could be purchased at a cheap price. Then, after the implementation of the ESOP the share price increases, the objective is to maximize the value of the stock options. The higher the profit generated by the company has a positive effect on stock prices (Shabani et al., 2013). When the stock price rises, providing incentives in the form of stock options will be more valuable for managers because it affects the income that the manager will receive higher.

There is still minimal research on the effect of equity incentives on earnings management in Indonesia, it is conducted by Asyik (2006) and Syariati et al. (2017). Therefore, this study wants to re-explore how the effect of equity incentives or Employee Stock Option Plan (ESOP) on Earning Management with a different study period, namely 2015-2017 which is based on the latest OJK regulation Number 38 / POJK. 04/2014. This regulation was made with the aim of making companies more calculating and not arbitrarily issuing shares for share options (Wibawa, 2014). Therefore, the new regulation clearly states that the maximum number of share options that can be granted to employees is 10% and is implemented within 5 years. Based on the description above, the hypothesis can be formulated as follows:

H1: Employee Stock Option Plan (ESOP) had a positive effect on Earnings Management

2. RESEARCH METHOD

This study is a type of explanatory quantitative research which intends to examine the effect of ESOP on Earnings Management. The type of data used in this study is secondary data obtained from the site www.idx.co.id by using documentation techniques. The population of this study is all publicly companies traded listed on the Indonesia Stock Exchange for the period 2015-2017. The choice of timeframe from 2015-2017 was due to the enactment of new regulations related to the new ESOP issued by OJK on December 30, 2014, namely OJK regulation Number 38 / POJK.04 / 2014. Meanwhile, the sample in this study was selected through purposive sampling technique by setting criteria, namely companies go public that have an equity incentive program or ESOP 2015-2017. Based on the predetermined criteria, there were 10 companies that met the criteria out of 617 companies go public listed on the IDX. Therefore, during the 3 years of the study the total sample as a whole was 30 company annual reports. In addition, the data analysis used in this study is descriptive analysis and linear regression of panel data with E-views programming.
Measurement of the ESOP variable uses a proxy for the number of stock options that can be given to employees divided by the number of shares outstanding (Cheng et al., 2011; Ismail et al., 2017).

- **ESOP**: Employee Stock Option Plan
- **JSK**: Number of stock options that can be given to employees
- **JSB**: Number of shares outstanding

Meanwhile, the variable is earnings management measured by using the approach discretionary accrual. Discretionary accruals were detected by using the Modified Jones Model. The following are the steps used in measuring the Modified Jones Model to obtain discretionary accruals:

\[
\text{Total Accrual } \text{TACC}_t = \text{NI}_t - \text{CFO}_t \\
\text{TACC}_t / \text{TA}_{t-1} = \beta_1 \left( \frac{1}{\text{TA}_{t-1}} \right) + \beta_2 \left( \frac{\Delta \text{REV}_t - \Delta \text{REC}_t}{\text{TA}_{t-1}} \right) + \beta_3 \left( \frac{\text{PPE}_t}{\text{TA}_{t-1}} \right) + \epsilon_t \\
\]

Score Nondiscretionary Accrual (NDA)

### Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESOP</td>
<td>0.000000</td>
<td>0.070000</td>
<td>0.009043</td>
<td>0.014058</td>
</tr>
<tr>
<td>Earnings Management</td>
<td>-0.681293</td>
<td>0.096954</td>
<td>-0.215944</td>
<td>0.242654</td>
</tr>
</tbody>
</table>

\[ \text{NDA}_t = \beta_1 \left( \frac{1}{\text{TA}_{t-1}} \right) + \beta_2 \left( \frac{\Delta \text{REV}_t - \Delta \text{REC}_t}{\text{TA}_{t-1}} \right) + \beta_3 \left( \frac{\text{PPE}_t}{\text{TA}_{t-1}} \right) \]

**Earnings Management**

\[ \text{EM} = \frac{\text{TACC}_t}{\text{TA}_{t-1}} - \text{NDA}_t \]

**EM**: Discretionary accruals for company i in period t  
**NDA**: Non discretionary accruals for company i in period t  
**NI**: Net income of company i in period t  
**TACC**: Total accrual of company i in period t  
**CFO**: Flow of operating cash flow of company i in period t  
**TA**: Total assets of company i in the previous period  
**AREV**: Change in sales of company i in period t  
**AREC**: Change in the company's net trade receivables in period t  
**PPE**: Fixed assets of company i in period t

### 3. RESULTS AND DISCUSSION

Based on the results of descriptive statistics in Table 1, it is known that the ESOP variable has a minimum value of 0.00000, a maximum ESOP of 0.070000 and an average ESOP of 0.009043 (0.9%), which means that the average ESOP provision to employees the sample companies are still classified as low because this value is still far below the maximum value of ESOP provision stipulated in OJK Regulation No.38 / POJK.04 / 2014, which is 10%. The standard deviation value from the ESOP is 0.014058.

Meanwhile, for the earnings management variable the minimum discretionary accrual value has a minimum value of -0.681293, a maximum of 0.096954 and an average of 0.215944, which means that the average earnings management pattern carried out by the sample companies is reducing earnings. Furthermore, the standard deviation value for discretionary accruals is 0.242654.
3.1 Panel Data Regression Analysis

The first step in conducting panel data analysis is to determine which is the best estimation model in this study. Panel data estimation models are divided into three, namely common effect mode, fixed effect model, and random effect model. When choosing the best model, it can be determined using the Chow test, Lagrange Multiplier test, and test Hausman. Based on the tests that have been carried out, the results can be seen in Table 3, which are as follows:

**Table 2. Results of Selection of Panel Data**

<table>
<thead>
<tr>
<th>Uji Model Regresi</th>
<th>Probability</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test</td>
<td>Probability cross section chi-square</td>
<td>0.0000</td>
</tr>
<tr>
<td>LM Test</td>
<td>Probability cross section Breush-Pagan</td>
<td>0.0000</td>
</tr>
<tr>
<td>Hausman Test</td>
<td>Probability cross section random</td>
<td>0.7949</td>
</tr>
<tr>
<td>Model Terpilih</td>
<td></td>
<td>Random Effect</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is known from Table 2 that the Chow test results show a value probability Chi-square cross section is 0.000 < α 0.05, so the estimation model chosen is the fixed effect model. Furthermore, it is continued with the LM test, from the results of the tests carried out the value is known probability the brush-pagan cross section of 0.0000 <α 0.05, so the estimation model chosen is the random effect model. The test is continued with the test Hausman and a value is obtained probability random cross section of 0.7949 > α 0.05, so the better estimation model is the random effect model. Based on the 3 tests that have been done, it can be concluded that only 1 test chooses the fixed effect model, and the other 2 tests choose the random effect model as the chosen model. Therefore, the estimation model chosen in this study is the random effect model.

The panel data regression estimation model selection stage has been carried out, then the next stage is conducting a classical assumption test. The classical assumption test performed is as follows:

### 3.2 Normality Test

Normality test in this study used the test Jarque-Bera. Data can be said to be normally distributed if the value probability Jarque-Bera > 0.05 (5%). Table 3 shows that the value probability Jarque-Bera is 0.155450> 0.05, so that the hypothesis Ho which explains the normally distributed data cannot be rejected.

**Table 3. Normality Test**

<table>
<thead>
<tr>
<th>Residual</th>
<th>Jarque-Bera</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>3.722856</td>
<td>0.155450</td>
</tr>
</tbody>
</table>

### 3.3 Heteroscedasticity Test

Heteroscedasticity Test was performed using the test white. Test decision making White by looking at the value probability of Obs * R-Squared. When the value probability is > 0.05, it is stated that there is homoscedasticity. A good regression model is free from heteroskedasticity or in other words, homoscedasticity occurs.

Based on the results of the heteroscedasticity test in Table 4, it shows that the regression model is free from heteroscedasticity. This can be seen from the value probability of Obs * R-Squared of 0.6251> 0.05. Furthermore, the results of heteroscedasticity can be seen as follows.
Table 4. Test Heteroscedasticity

<table>
<thead>
<tr>
<th></th>
<th>F-statistic</th>
<th>Prob. F(2,27)</th>
<th>0.6508</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs*R-squared</td>
<td>0.939535</td>
<td>Prob. Chi-Square(2)</td>
<td>0.6251</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>0.577793</td>
<td>Prob. Chi-Square(2)</td>
<td>0.7491</td>
</tr>
</tbody>
</table>

3.4 Autocorrelation Test

Autocorrelation test in this study uses the test Breush-Godfrey or also called the Lagrange Multiplier. Provisions for the freedom of the regression model from autocorrelation by looking at the value probability Obs * R-Squared. If the value probability > α 0.05 (5%) then the data does not contain autocorrelation. The autocorrelation test results that have been carried out show that the calculated value probability is Obs * R-Squared equal to 0.1033 > α 0.05, so it can be said that the regression model is free from autocorrelation. Furthermore, the autocorrelation test can be seen in Table 5.

Table 5. Autocorrelation Test

<table>
<thead>
<tr>
<th></th>
<th>F-Statistic</th>
<th>Prob. F(2,26)</th>
<th>0.1184</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs*R-squared</td>
<td>4.540474</td>
<td>Prob. Chi-Square(2)</td>
<td>0.1033</td>
</tr>
</tbody>
</table>

After the data meets the classical assumption test and the most suitable model has been selected, namely the random effect model, a regression analysis can be performed. Based on the analysis conducted, it shows that the Employee Stock Option Plan has no effect on Earnings Management. This is evidenced by the ESOP variable which has a p-value of 0.0604> 0.05. Then, the R square value generated from this study is 0.124, which means that the variation in the variable Earnings Management can be explained by the variation in the ESOP variable by 12.4%. Furthermore, for hypothesis testing can be seen in Table 6.

Table 6. Results of Panel Data Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.232788</td>
<td>0.083013</td>
<td>-2.8042</td>
<td>0.0091</td>
</tr>
<tr>
<td>ESOP</td>
<td>1.862656</td>
<td>0.951746</td>
<td>1.9570</td>
<td>0.0604</td>
</tr>
</tbody>
</table>

R-squared = 0.124

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4. DISCUSSION

Based on the data analysis that has been done, it is concluded that the Employee Stock Option Plan (ESOP) has no effect on Earnings Management. There are several factors explaining that ESOP has no effect on earnings management. The first factor is that the proportion of ESOP that has been approved by shareholders at the General Meeting of Shareholders has a low average value. The low proportion of ESOP provision makes employees own shares in small companies, so they have been categorized as minority shareholders. When employees become minority shareholders, it is difficult for them to control management activities and regulate the company's operating policies according to their wishes. This happens because company control remains the authority of the previous shareholders who have majority ownership and of course they also have more authority to supervise the running of the company (Mukhtar & Taqwa, 2016) so that it does not provide opportunities for employees to act according to their wishes.

The second factor is the existence of ESOP as a form of compensation in the form of incentives does not affect earnings management actions because employees are more focused on obtaining other types of compensation, such as holiday allowances provided in cash. This is supported by the results of a survey conducted by JobStreet.com on 4,331 employees in Indonesia, where of these respondents 52.16% of employees stated that the company provided compensation in the form of holiday allowances as the main means of appreciating employees (Wahyuni, 2016). According to the Minister of Manpower Regulation No. 6 of 2016 compensation in the form of holiday allowances is provided in the form of money provided that it uses Rupiah currency of the Republic of Indonesia. In addition, it is necessary known that ESOP is a relatively new phenomenon in Indonesia (Firmansyah & Sari, 2014). The existence of these conditions can result in limited knowledge possessed by employees so that it becomes an obstacle to the implementation of ESOP (Bapepam, 2002 in Susilawaty & Dewi, 2017). In the end, the limited knowledge possessed by employees can make them unaware of the ESOP and make it meaningless. Therefore, the existence of such conditions can make employees not motivated to carry out earnings management by providing compensation in the form of ESOP incentives, but they are more focused on other compensation, such as holiday allowances in the form of cash.

The third factor causing ESOP has no effect on earnings management because the sample companies have implemented good corporate governance seen from the elements of the audit committee. The more the number of the company's audit committee, the more it will support the diversity of knowledge and expertise of the supervisory function that the audit committee has towards management (Choi et al., 2004). Moreover, Laux & Laux (2009) also stated that an increase in equity incentives or stock options does not always lead to a higher level of earnings management because the audit committee will adjust its monitoring efforts towards manager behavior. Therefore, even though employees or managers are given incentives in the form of equity or stock options, but the level of supervision exercised by the audit committee increases, managers do not have the opportunity to do earnings management.

Based on the context of this study, there is a positive influence between ESOP and earnings management, which is in accordance with the established hypothesis, but this effect is not significant. This is one of the basics of importance for further studies. Meanwhile, if it is related to the theory, the results of this study do not support the validity of agency theory which explains that conflicts of interest between agents and principals can occur due to each individual wants to maximize their own interests. To minimize this conflict, incentives in the form of stock options cannot be used as an alignment alternative, but more usable alternative is the existence of an audit committee. The audit committee can be used as an alignment alternative because its main responsibility is to supervise financial reports in order to be in a higher quality and reliable (Alzoubi, 2019), and also monitor manager behavior (Fama & Jensen, 1983).

The results of this study are consistent with study conducted by Maiyusti (2014) who found that ESOP has no influence on earnings management. However, the results of this study did not succeed in proving the research conducted by Alves (2012), Asyik (2006), Harris et al. (2019), Lee et al. (2011); Liu et al. (2014) McAnally et al. (2008), and Shariati et al. (2017) who concluded that ESOP has a positive effect on earnings management.
5. CONCLUSIONS

Conclusion obtained from this study is that the Employee Stock Option Plan (ESOP) has no effect on Earnings Management. It can occur due to several factors, including the average provision of ESOP which has a low value, employees who are more focused on other compensation such as holiday allowances in the form of cash which are considered more familiar, and sample companies have good corporate governance seen from the elements, audit committee.

The limitations in this study are (a) The period used in this study is quite short, namely 3 years (2015-2017), (b) This study cannot explain the effect of ESOP on earnings management in each sector, (c) Specifically, in the sector manufacturing earnings management activities are not only carried out on accruals, but also real activities. However, this study only focuses on the measurement of earnings management from the accrual side. Therefore, it is possible that earnings management behavior does not reflect the overall situation.

Based on limitations of the study, the advice that can be given to investors is that in protecting the interests of the company, investors should not only consider the existence of the ESOP, but also observe corporate governance in depth. Then, for the Manager should not take earnings management actions because it will harm many parties and result in reduced company credibility. Furthermore, for the development of further research the suggestions that can be given are (a) Increasing the research period of at least 5 years of research because the ESOP implementation period that has been stipulated in the OJK regulations is five years, (b) Carrying out research by grouping the types of companies according to the sector (c) When involving research from the manufacturing sector, it is recommended to add earnings management measurements from a different point of view, namely using measurements based on real activities (d) When conducting research involving the banking sector, there is a more specific measurement of earnings management, namely using a proxy for measuring earnings management discretionary loan loss provision.

REFERENCES


Law of Financial Service Authority, No. 38/POJK.04/2015, Regarding the increase of a public company capital without providing preemptive right. Retrieved from www.ojk.co.id.


Mukhtar, N., & Taqwa, S. (2016). Pengaruh earning power, kecakapan manajerial, dan employess stock...


