EFFECTS OF EARNINGS MANAGEMENT AND COMPANY SIZE ON RETURN ON ASSETS BY ACQUISITION COMPANIES IN INDONESIA STOCK EXCHANGE IN 2011-2016

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Abstract: Tendency of earnings management practice approaching merger and acquisition aims to increase share price before stock merger so that it can reduce company purchase cost of acquisition target. Previous research has proven the presence of profit management. While, company size is considered having ability to affect on company value. Since larger size or scale of company will lead to easier company way to obtain sources of funds both intern and extern. This research aims to describe the effects of earnings management on the disclosure of stock return and effects of company size on stock return.

Population in this research is acquisition companies that are registered in Indonesia Stock Exchange in 2011-2016. Sampling technique used purposive sampling so there are 40 companies as the research samples. The data used in this research are secondary data taken from ISE website and TICMI. Analysis technique is multiple linear regression, the regression model also has passed classical assumption test.

Results of the research indicate that acquisition company management truly conducts earnings management when publication before acquisition announcement. The earnings management by acquisition companies give negative effects on stock return; meanwhile company size has no effects on stock return of acquisition companies.

Keywords: Profit Management, Company Size, Stock return.

1. INTRODUCTION

Stock return plays a very important role for company since it is used as one of the performance measurement tools by a company so that the company can maintain and improve its performance which then can affect on stock return in order to improve invested stock. A research by Ball and Brown (1968) replicated by Maharani (2014) stated that particularly, investors tend to make transactions based on the profits that are presented in financial reports. Unfortunately, a research conducted by Ball and Brown (1968) is contradictory to facts in the fields. There are some manufacture companies in consumption goods industry sector that are registered in Indonesia Stock Exchange face a phenomenon of decreased company stock price at increased or decreased net profit. There are some companies faced this issue in 2012 & 2013 such as PT Gudang Garam Tbk (GGRM) and PT Ultrajaya Milk Industry and trading Company Tbk (ULTJ).

As we know, capital market is one of the addressed places to meet funders and company parties requiring the funds. This encourages the company to develop itself. This company development can be done by various procedures. Ones of which are merger and acquisition. At company acquisition situation, the merger and acquisition are carried out by stock payment; in this case, the management of acquisition company tend to increase its company profit value. It aims not only
to present company earnings power in order to be able to attract target company interest for the acquisition, it is also to improve the company stock price.

Tendency of earnings management practice approaching the merger and acquisition period aims to increase stock price before stock merger in order to decrease target company purchase cost. Rahman dan Bakar (2002) as quoted by Kusuma and Udiana (2003) proven the earnings management through discretionary accrual in acquisition companies before merger and acquisition in Malaysia in the years before the acquisition. Meanwhile, company size is considered to be able to affect on company value. Since larger company size or scale will lead to easier way for company to obtain bank sources of funding both intern and extern. A research by Acheampong, Agalega & Shibu (2014) indicated that company size affects positively and significantly on stock return.

2. LITERATURE REVIEW

Agency Theory

Agency Theory is a theory describing contractual relations between principals and agents. The principal party is the party giving mandates to another party, namely the agent, to conduct all activities on behalf of the principal in its capability as decision maker (Jensen and Smith, 1984).

Agency Theory is used as the main basic which underlies the hypothesis to be developed even though not in terms of direct agent-principal relations. This theory describes the relationship between shareholders as the principals and management as the agents. The management is a party contracted by the shareholders to work for the benefit of shareholders. The management must account for all its work to shareholders.

Signal Theory

Signal theory describes on the importance of performance measurement. This theory describes how it should describe the success or failure signals of the management as the agent to be delivered to the owner as the principal. Spense (1973) and Ross (1977) adopted by Leland and Pyle (1977) in Khifi and Bouri (2010) describing the signal theory on how a company provides signals to its financial report users.

According to Hartono (2005:38), the signal theory stated that good quality companies will intentionally provide signals to the market, thus, the market is expected to differentiate good and bad quality companies.

Market efficiency

Fama (1970) in Kusuma (2016) defined market efficiency as full reflections of security prices on all available information. Tandelilin (2010:221) defined efficient market concept more to the emphasis on information aspect, meaning that efficient market is the market when the prices of traded securities have reflected all available information.

Business Combination

Statement of Financial Accounting Standards Number 22 (PSAK No.22) the 2010 revision concerning accounting mergers describes that "business combination is the union of two or more companies that are separated into an economic entity because a company merge with another company or obtaining control of assets and operations of other companies, the type of business combination can be divided into two, namely acquisition and merger.

Acquisition

According to PSAK No. 2 paragraph 08 of 1999, Acquisition is a business combination in which one company, namely the acquirer, obtains control over the net assets and operations of the acquiree, by giving certain assets, recognizing obligations, or issuing shares.

Based on this definition, it can conclude that acquisition is a form of business combination by two or more companies in which one company takes over the assets or shares of other companies which results in the acquiring company having the ability to control the taken over company.

Merger

Government of the Republic of Indonesia Regulation No. 27 of 1988 defines merger as a legal act carried out by two or more companies to merge with other existing companies and subsequently the company which merges becomes disbanded.
The Statement of Financial Accounting Standards (PSAK) no. 22 states that a merger is a business merger process, by taking over one or more other companies. After the takeover, the taken over company is dissolved or liquidated, so that it has existence as a legal entity, thus its business activities are continued by the company that takes over.

**Earnings Management**

Earnings management is an intervention in external financial reporting process in order to change the financial information based on the management needs to achieve benefits for the management. Scott (2003) defined earnings management as “the choice by a manager of accounting policies so as to achieve some specific objective”.

There are three hypotheses as the background for the earning management in Positive Accounting Theory (Watt dan Zimmerman, 1986), namely: (1) Bonus Plan Hypothesis, (2) Debt Covenant Hypothesis, (3) Political Cost Hypothesis. According to Ronen and Sadan (1979), as well as Ali and Kumar (1994), application of earnings management can be done through *creative accounting practices* with 3 techniques, namely: selection of accounting method, classification of accounting system and arrangement of transaction time.

Accrual-based accounting according to Kohler’s Dictionary for Accountants 6th Ed. (1983) is an accounting method in which income and cost are defined based on certain period of time, such as month or year, and recorded at its occurrence, simultaneously with obtaining assets, without considering date of acceptance or cash money payment. According to *International Financial Reporting Standard (IFRS)* accrual accounting is an accounting methodology in which transactions are recognized at the time of economic events, regardless the time of acceptance and cash payment.

**Company size**

Jaelani (2001) in Suryani (2007:42) stated that company size describes the size of a company. Big and small size of a company can be seen from the size of its used capital, total assets owned, or total sales obtained. Company size will affect on its ability to bear any risks that may arise due to various situations faced by the company related to its operations. Basically, the size of the company is only divided into 3 categories: large firm, medium firm and small firm. This determination of company size is based on total company assets (Machfoedz, 1994).

### 3. RESEARCH HYPOTHESES

Based on a research conducted by Sutanto (2000) testing whether reported profits before go-public indicate relatively increase than profit after go public; the results indicate that company managers conducting IPO uses discretionary accruals to increase accounting earnings to be reported in prospectus financial reports. Also, there is a research conducted by Gunawan and Surakartha (2013) on payment methods of merger and acquisition; it provides results that company using stock as its payment method of merger and acquisition has better market performance than one with cash payment method.

Based on agency theory supported by earnings management theory and empirical review above, it can conclude that company tries to affect on the market by publishing positive financial information. From the argument, it proposes the following alternative hypothesis:

H1: management of acquisition company conducts earnings management at the publication before acquisition announcement.

Scott (2000) in Gumanti (2001) divide the way to understand earnings management into two. First, seeing it as an opportunistic behavior of managers to maximize their utility in dealing with compensation contracts, debt contracts and political costs (*Opotunistic Earnings Management*), which earnings management gives managers the flexibility to protect themselves and the company in anticipating unexpected events for the sake of the parties involved in the contract. Thus, managers can affect on the market value of the company's stock through earnings management, for example by making income smoothing and earnings growth over time.

Based on this, it can formulate the following hypothesis:

H2: Earnings management affects positively on stock return of acquisition company.

Watts and Zimmerman (1978) in Sukartha (2008) stated that company positive accounting theory is used as political cost and there will be increased political cost by the increasing company size and risks. Company with larger size has more
access to obtain sources of funding from various sources, so that it can be easier to obtain loans from creditors since that company with larger size has more possibility to attract investors.

Based on this, it can formulate the following hypothesis:

H3: company size affects positively on on stock return of acquisition company.

4. RESEARCH METHODS

The population used in this study are companies that acquire other companies in the period OF 2011 to 2016 and are listed on the Indonesia Stock Exchange (IDX). The samples in this study were obtained by purposive sampling method, with the following criteria: 1) Companies that make acquisitions of other companies in the study period (2011 - 2016). 2) Acquisition company with stock payment. The source of data in this study is secondary data. Based on the predetermined criteria, there are 40 acquisition companies as the research samples.

The indications of earnings management in this study are measured by proxy discretionary accrual (DA) using the Modified Jones model (Jones Modification) developed by Dechow (1995), this model is chosen because it can detect earnings management in a better manner than other models (Usadha and Yasa, 2008).

The total accruals for \( t \) period are expressed in the following equation:

\[
TA_{it} = NI_{it} - OCF_{it} ... \tag{1}
\]

\[
\frac{TA_{it}}{A_{it-1}} = \alpha t \left( \frac{1}{A_{it-1}} \right) + \beta_{1t} \left( \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \beta_{2t} \left( \frac{PPE_{it}}{A_{it-1}} \right) + \epsilon_{it} ... \tag{2}
\]

Information:

\( TA_{it} \) = Total Accruals of i company in t year

\( \Delta REV_{it} \) = i company net income in t year t reduced by net income in t-1 year

\( \Delta REC_{it} \) = i company net receivables in t year reduced by net receivables in t-1 year

\( PPE_{it} \) = fixed assets (gross) of i company in t year

\( A_{it-1} \) = Total Assets of i company in t-1 year

\( \epsilon_{it} \) = residual value of I company in t year

\( NI_{it} \) = Net Income of i company in t year

\( OCF_{it} \) = Operating Cash Flow of i company in t year

**Non Discretionary Accruals** (NDA) can be calculated by re-inputting \( \alpha \) coefficient into the equation:

\[
NDA_{it} = \alpha t \left( \frac{1}{A_{it-1}} \right) + \beta_{1t} \left( \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \beta_{2t} \left( \frac{PPE_{it}}{A_{it-1}} \right) ... \tag{3}
\]

After model regression above, DA by each company can be calculated by the following equation:

\[
DA_{it} = TA_{it} - NDA_{it} ... \tag{4}
\]

Information:

\( NDA_{it} \) = Non Discretionary Accruals of i company in t year

\( DA_{it} \) = Discretionary Accruals of i company in t year

Empirically, Discretionary Accruals value can be zero, positive or negative. Zero value indicates earnings management with income smoothing pattern. While positive value indicates existence of earnings management with increasing income pattern and negative value indicates earnings management with decreasing income pattern (Sulistianto, 2006).

Company size indicates whether a company is classified as a small company, medium company, or large company. Large companies are considered to have less risk than small companies because large companies are considered to have more access to capital markets (Elton and Gruber, 1994, in Hartono, 2000: 254). To obtain the company size figure, it is proxied by Ln from the company total assets.
Return is the result obtained from the investment or the level of profit earned by the investor for an investment he does (Hartono, 2000). In this study, the general stock return formula will be used by considering capital gains is:

\[ R_{it} = \frac{P_{it}-P_{it-1}}{P_{it-1}} \] ................................. (5)

Information:

\[ R_{it} \] : stock Return for each company

\[ P_{it} \] : stock price of i company in t period

\[ P_{it-1} \] : stock price of i company in t-1 period

In order to answer the hypotheses, there will be data analysis using multiple linear regression with the following formula:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \] ................................. (6)

In which:

\[ Y \] = stock Return

\[ \alpha \] = constant

\[ \beta \] = regression coefficient

\[ X_1 \] = earnings management (measured by Discretionary Accrual)

\[ X_2 \] = company size

\[ \varepsilon \] = disturbing components

5. RESULTS AND DISCUSSION

This research uses one type of data namely secondary data, in the form of stock price of acquisition companies on the date of acquisition until three days after the date of acquisition announcement. There are 71 acquisition activities as the research population. Out of the number of population, then there is a selection based on the predetermined criteria to determine research samples. There are 40 companies as the research samples meeting the criteria.

The following is the earnings management measurement data.

Table 1: Earnings Management Measurement Data

<table>
<thead>
<tr>
<th>Company code</th>
<th>Company name</th>
<th>Acquisition year</th>
<th>Non Discretionary Accruals (NDA)</th>
<th>Discretionary Accruals (DA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NISP</td>
<td>PT Bank OCBC NISP Tbk</td>
<td>2011</td>
<td>0.004430829</td>
<td>-0.027470340</td>
</tr>
<tr>
<td>TPIA</td>
<td>PT Tri Polyta Indonesia Tbk.</td>
<td>2011</td>
<td>-0.090892483</td>
<td>0.014735585</td>
</tr>
<tr>
<td>BBRI</td>
<td>PT Bank Rakyat Indonesia (Persero) Tbk</td>
<td>2011</td>
<td>-0.000755875</td>
<td>-0.000922575</td>
</tr>
<tr>
<td>APLN</td>
<td>PT Agung Podomoro Land Tbk</td>
<td>2011</td>
<td>-0.0255159744</td>
<td>0.200328786</td>
</tr>
<tr>
<td>ANTM</td>
<td>PT Aneka Tambang Tbk</td>
<td>2011</td>
<td>-0.025515851</td>
<td>0.20032878</td>
</tr>
<tr>
<td>ICON</td>
<td>PT Island Concepts Indonesia Tbk</td>
<td>2011</td>
<td>0.202219084</td>
<td>-0.155364493</td>
</tr>
<tr>
<td>JSMR</td>
<td>PT. Jasa Marga (Persero) Tbk</td>
<td>2011</td>
<td>-0.193768837</td>
<td>0.169278216</td>
</tr>
<tr>
<td>EMTK</td>
<td>PT Elang Mahkota Teknologi Tbk</td>
<td>2011</td>
<td>-0.152804796</td>
<td>0.070514342</td>
</tr>
<tr>
<td>LPPF</td>
<td>PT Matahari Department Store Tbk.</td>
<td>2011</td>
<td>-0.566305624</td>
<td>0.115594730</td>
</tr>
<tr>
<td>KIJA</td>
<td>PT. Kawasan Industri Jababeka Tbk</td>
<td>2011</td>
<td>-0.236406495</td>
<td>0.195762039</td>
</tr>
<tr>
<td>MBSS</td>
<td>PT Mitrahahtera Segara Sejati Tbk</td>
<td>2012</td>
<td>-0.222127932</td>
<td>0.15594730</td>
</tr>
<tr>
<td>APLN</td>
<td>PT Agung Podomoro Land Tbk</td>
<td>2012</td>
<td>-0.043078929</td>
<td>0.00867868</td>
</tr>
<tr>
<td>SUPR</td>
<td>PT Solusi Tunas Pratama Tbk</td>
<td>2012</td>
<td>-0.009426451</td>
<td>0.033114273</td>
</tr>
<tr>
<td>PALM</td>
<td>PT Provident Agro Tbk</td>
<td>2012</td>
<td>-0.268603454</td>
<td>0.237051902</td>
</tr>
<tr>
<td>KLBF</td>
<td>PT Kalbe Farma Tbk</td>
<td>2012</td>
<td>-0.158299956</td>
<td>0.206490451</td>
</tr>
<tr>
<td>SUGI</td>
<td>PT Sugih Energy Tbk</td>
<td>2012</td>
<td>0.120668903</td>
<td>-0.145655108</td>
</tr>
</tbody>
</table>
Descriptive statistic test results show that stock return variable (Y) has mean by 0.0143 or 1.43%. Meanwhile, deviation standard value is 0.0405 (4.05%). These data show that companies as the research samples face stock return increase by 1.43%. Discretionary Accrual (DA) is used as earnings management calculation tool. Earnings management variable (Xi) show mean by 0.0206 (2.06%). The value show that earnings management by each management of acquisition companies during 2011-2016 has mean in the form of increasing or its earnings increase by 2.06% from company total assets. Company size variable (X2) is proxied by Ln total asset. The company size variable (X2) indicates mean by 30.08. The value shows that averagely acquisition companies in Indonesia in 2011-2016 has assets by 30.08 billion rupiah.

Regression classical assumption according Ghoozali (2009) covers normality test, multicollinearity, autocorrelation test and heteroscedasticity test. The normality test in this research is conducted by Kolmogorov-Smirnov (K-S). There is normal distribution of residual data when significance value of K-S > 0.05 as well as when Asymp.sig (2 tailed) is more than α = 0.05. Normality test has result by 0.119 (more than 0.05) of the Asym. Sig. Value (2-tailed) by 0.162 (more than 0.05). This means that the variables used in this research have normal distribution.

Multicollinearity aims to test whether regression model has inter-independent variable correlation or not. To test the multicollinearity, there is an analysis of inter-variable correlation and calculation of tolerance value as well as Variance Inflation Factor (VIF). The VIF of each variable is around 1.008. This means that VIF value of each variable is around 1. Meanwhile, tolerance value is around 0.992 as more than 0.10. From the results, it can be seen that the regression model is free from inter-independent variable multicollinearity.

Testing on autocorrelation can be done by using Durbin-Watson (DW). The Durbin-Watson test using a significance value of 0.05, the number of observations (n) = 40 and the number of independent variables (k) 2, it obtains a value of 1.39 (lower limit of Durbin-Watson / dL) and 1.60 (upper limit of Durbin-Watson / dU). The test results show that the Durbin-Watson value by 2.049 is greater than the upper limit of 1.60 (dU) and less than 2.40 (4-dU), so it can be concluded that the regression model has no autocorrelation in the research.

Heteroscedasticity test aims to test whether in the regression model as a residual variance inequality from one observation to another observation. To detect the presence or absence of heteroscedasticity, it is used Glejser model. The Glejser test is conducted by regressing the absolute value of the residual with the independent variables. The presence or absence of
heteroscedasticity can be known by looking at the level of significance of \( \alpha = 5\% \). The test results show that there are no independent variables that have significant effects on the dependent variables. So it can be concluded that the regression model has no heteroscedasticity symptoms.

### Table 2: Analysis Results of Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model (Constant)</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>DA (X₁)</td>
<td>-0.093</td>
<td>0.040</td>
<td>-0.348</td>
<td>-2.291</td>
</tr>
<tr>
<td>Ln TA (X₂)</td>
<td>-0.004</td>
<td>0.004</td>
<td>-0.156</td>
<td>-1.025</td>
</tr>
</tbody>
</table>

Based on Table 2, the analysis test results of multiple linear regression can be obtained as follows:

\[
Y = 0.134 + (-0.093X₁) + (-0.004X₂)
\]

The value of \( \alpha = 0.134 \) means that if all earnings management variables \( (X₁) \) and firm size \( (X₂) \) are stated to be zero \( (0) \), there is no stock return \( (Y) \). \( \beta₁ = -0.093 \) in earnings management variable means that if other variables are constant while earnings management \( (X₁) \) increases by 1 unit, then the stock return \( (Y) \) will decrease by 9.3\%. \( \beta₂ = -0.004 \) in the company size variable means that if other variables are constant while firm size \( (X₂) \) increases by 1 unit, then the stock return \( (Y) \) does not change.

### Management of Acquisition Companies in Conducting Earnings Management At the Publication Before Acquisition Announcement:

The research results show that the management of the acquisition companies conducts earnings management at the publication before the acquisition announcement. In the results of the Discretionary Accrual \( (DA) \) calculation state that there are 16 companies with negative discretionary accrual values. While the remaining of 24 companies obtain positive discretionary accruals. The results of the descriptive statistics calculation show that the mean of earnings management variable \( (X₁) \) is 0.0206 (2.06\%). This value shows that the mean of earnings management carried out by each acquisition company management during 2011-2016 is in the form of increasing income or increasing profits by 2.06\% of the total company assets. So, it can be concluded that the average management of the acquisition company conducts the earnings management by increasing its company's profit at the publication before the acquisition announcement.

According to Lani and Vonny (2009), in the implementation of merger and acquisition, there is a condition supporting the earnings management actions conducted by the acquisition companies. Related to the willingness by the acquisition companies for merger and acquisition by stock payment method, then the management of acquisition company tends to increase its company profit value. This aims to use the company power earnings to attract target company interest to conduct the acquisition and also to increase its company stock price. So, the company will obtain profit by issuing stock with relatively small number.

### Earnings management affects negatively on stock return of acquisition companies

The analysis results show that the earnings management coefficient \( (X₁) \) is -0.093 with a significance level of 0.028. This means that earnings management \( (X₁) \) has negative effects on the stock return \( (Y) \) of the acquisition company. The negative effects show that higher level of earnings management will lead to decreased stock return by 9.3\%. Although there is positive (+) mean indicated by the earnings management variable \( (X₁) \) in the descriptive statistical calculation, but in the calculation of discretionary accrual \( (DA) \) as a profit management calculation tool, there are quite large number of negative (-) value, namely -25,741\% and -38,171\%. Therefore, the researchers conduct a further analysis with Deep Analysis. This analysis is done by eliminating the negative discretionary accrual \( (DA) \) (-). The result of Deep Analysis shows that the earnings management coefficient \( (X₁) \) is 0.136 with a significance level of 0.029. This means that after the Deep Analysis, the earnings management \( (X₁) \) has positive effects on stock returns.

The mean increase in stock returns of 1.43\% in the capital market is not very significant. Looking back at the calculation of cumulative return, there is a large negative (-) value of -5.193\%. This results negative effects of the earnings management variables \( (X₁) \) on the stock returns \( (Y) \). The results of this test are not in line with a research conducted by
Ardiati (2005) and Ferdiansyah (2012) which have succeeded in proving the existence of positive effects of the earnings management on the stock returns.

**Company size has no effects on stock return of acquisition companies**

The research results show that the firm size (X2) coefficient is -0.004 with a significance level of 0.312. This means that there is no effect of the company size on the stock returns (Y) of the acquisition company. The results of descriptive statistical analysis show the mean of the company size is 30.08. This value shows that on average, the acquiring companies have assets of 30.08 billion. While the mean of stock returns is 0.0143 (1.43%) indicating that the mean stock return of the acquisition company has increased by 1.43%.

These results indicate that the company size has no effect on the stock return of the acquisition company. This can be caused by various things; one of which is the investors do not take into account the company size in determining the purchase of shares. This research does not support a research conducted by Munte (2009) which states that the company size has effects on the stock returns.

**6. CONCLUSION**

Based on the research results, it can conclude that the management of acquisition company conducts earnings management at the publication before the acquisition announcement. Average company making acquisition during 2011-2016 with earnings management is by its company income increasing method. Related to the willingness by the acquisition companies for merger and acquisition by stock payment method, then the management of acquisition company tends to increase its company profit value. This aims to use the company power earnings to attract target company interest to conduct the acquisition and also to increase its company stock price. So, the company will obtain profit by issuing stock with relatively small number.

The earnings management has no positive effects on the stock return of acquisition company. It means that H2 is rejected, reversely the research results show that the earnings management has negative effects on the stock return. It shows that more earnings management conducted by acquisition company will lead to lower stock return that can be obtained. This means that the research conducted on company size indicates that the company size is not a benchmark for investors to invest. This indicates that the growth of a company can not only seen from the company size. So that investors pay less attention to the company size in buying shares.

**7. FURTHER RESEARCH**

Based on the results of the research and conclusions, the suggestion that can be proposed is the addition of variables that may affect on the stock return of acquisition company. The variable that can be added to further research is managerial ownership.

It is also recommended that further research only examine on only the positive effects of discretionary accruals (DA). This relates to the analysis results which after further analysis, deep analysis, it indicates that the earnings management has positive effects on stock returns.

**REFERENCES**


