Influence of Investment Opportunity Set, Financial Leverage and Firm Size on Real Activity Manipulation and Its Implication on Stock Return
(Study on Manufacturing Company Listed in Indonesia Stock Exchange)

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Abstract
This study is aimed to examine the influence of investment opportunity set, financial leverage and firm size on real activity manipulation and its implication on stock return, either simultaneously or partially. The research data collection is conducted by employing secondary reports of audited financial reports of manufacturing companies listed in Indonesian Stock Exchange. The unit of analysis used is the manufacturing companies listed in Indonesia Stock Exchange within the period of 2010-2014. The unit of observation is selected by using purposive sampling method of which it employs 380 observations of companies. From those numbers, it is further selected of companies that have real activity manipulation of which is 206 observations. Hence the final number of observations selected by using purposive sampling method that indicated real activity manipulation amount is 174 companies. The analytical method used in this research is path analysis. The results showed that (1) investment opportunity set, financial leverage and firm size have a simultaneously significant influence on real activity manipulation (2) investment opportunity set has no significant influence on real activity manipulation, (3) financial leverage has a significant influence on real activity manipulation, (4) firm size has no significant influence on real activity manipulation, (5) investment opportunity set, financial leverage, firm size and real activity manipulation have a simultaneously significant influence on stock return, (6) investment opportunity set has a significant influence on stock return, (7) financial leverage has no significant influence on stock return, (8) firm size has no influence on stock return, (9) real activity manipulation has no significant influence on stock return, (10) real activity manipulation does not mediate the influence of investment opportunity set on stock return, (11) real activity manipulation does not mediate the influence of financial leverage on stock return, (12) real activity manipulation does not mediate the influence of firm size on stock return.

Keywords: Investment Opportunity Set, Financial Leverage, Firm Size, Real Activity Manipulation, Stock Return.

INTRODUCTION
The capital market provides an opportunity for companies to compete fairly in order attract investors to invest in his company, so investors need information to assess the capability and performance company. One source of basic information necessary for investment decisions are financial report (Adiwiratama, 2012).

The financial report can used by investors to determine which company has capacity and better performance in the operations. One components in the financial report under consideration for investors in making investment decisions is cash flow report, because information in the cash flow report used by investors to consider and evaluate performance company.

Some investors tend to focus more on the earnings information in the financial statements regardless of how profits from the company, so encourage the management to profit manipulation practices intended to generate profits normal for company. Earnings management performed with two ways earnings management through accounting policy on the manipulation of earnings figures performed with engineering and accounting policies and earnings management through real activity refers to the manipulation of earnings figures were done through activities originate from normal business activities or related operational activities (Sulistiawan, et al., 2011).

Real activity manipulation is earnings management activities deviate from normal business practice, with main purpose of the determination certain income limits (Roychowdury 2006). Real activity manipulation performed with operating cash flows, production cost and discretionary cost.

Earnings information is a reference for investors to invest their capital to companies, because positive and negative profit gained would effect stock returns. Several factors can effect stock returns are investment opportunity set, financial leverage and firm size.

Companies grow can seen from increase in stock price, so companies have a high chance investment
will have a bright future prospects. Companies have high investment opportunities will evaluated positively that investors will attracted to invest in the hope of obtaining a larger return in the future.

Financial leverage have effect on stock return. The use of high leverage will increase the company's capital quickly, otherwise if sales are declining, the company's capital will decline rapidly as well (Hanafi and Halim, 2000). Financial leverage can used as an alternative to increase your profits without having to lose control of the company with the aim of increasing returns.

Large companies with the scope of operational activities of the broader expected to generate greater profits than small companies. Nuringsih (2005) declared the capital market more accessible large companies so that with this opportunity the company will be optimized to produce the output in order to maximize profits.

The main objective of investors to invest is to obtain a high return. However, the imbalance of information between investors and management provides the opportunity for management to act opportunistically. In the financial report, management to manipulate earnings to mislead stockholders about the company's economic performance.

Investment opportunity set have effect on real activity manipulation. Gul, et, al. (2000), managers of companies with high growth more use to mark their information management regarding the company's growth opportunities in the future.

Financial leverage have effect on real activity manipulation. Watts and Zimmerman (1990), the higher company's corporate debt against tighter restrictions contained in the debt agreement and the greater chance of default which allow management to increase profits.

Firm size indicates the amount of experience, ability and level of risk in managing the investment given the investor. Juniarti (2005) large companies are expected to avoid too drastic fluctuations earnings, because profit increase will cause a drastic increase taxes.

Based on the background exposure that has been stated previously, the authors are interested in doing further research with the title “The effect of Investment Opportunity Set, Financial Leverage and Firm Size on Real Activity Manipulation and its Impact on Stock Return (Study at Manufacturing Companies Listed in Indonesia Stock Exchange).

LITERATURE REVIEW

Effect of Investment Opportunity Set on Real Activity Manipulation
Companies with a high growth rate have the motivation to minimize profit. High growth rates characterized high investment opportunities are seen in the company's profitability. High profit levels can read the regulator which indicate the presence of monopolistic practices. Companies with high investment opportunities engineered decline profits, aims to minimize political costs, such as regulatory demands, workers' demands (Saputro dan Setiawati, 2004).

Effect of Financial Leverage on Real Activity Manipulation
Companies have high leverage means the proportion of debt is higher than the proportion of assets tend to manipulate earnings so companies have a high leverage tend to adjust reported earnings with raising or lowering earnings future period to current period. Prospects a breach of agreement restricting the activities companies in the company's operations. To avoid infringement, the company's managers choose certain accounting policies can improve the current period earnings (Agustia, 2013).

Effect of Firm Size on Real Activity Manipulation
Differences firm size raises the risk of different ventures between large and small business, and also a great effort is considered more have access to capital markets making it easier to obtain additional funds which can then improve profitability. Larger companies will be considered public, so it will be more cautious in making financial reporting. The Company has more ability to maintain the condition of an efficient internal control system and good corporate governance, including inaccurate information derived from earnings manipulation (Eka, 2014). While small companies have a poor financial condition stable and more prone to financial difficulties caused the company's competitive ability is weak and limited funds (Christianti dan Sanjaya, 2014).

Effect of Investment Opportunity Set on Stock Return
Companies have high investment opportunities have bright future prospects and will affect the stock price increases stock returns increased. The likelihood of high investment firm will be able to produce higher the rate of return for investors to pay attention information about investment opportunities in the future. Investors responded positively to growth companies, because the company believes are growing larger return than with a company that does not grow (Solechan, 2008).

Effect of Financial Leverage on Stock Return
The linkage between financial leverage with stock returns can be explained through the Trade-off Theory. According Trade-off Theory, the optimal capital structure is determined trade-off between the benefits and disadvantages of using debt funding sources. Financial leverage also affect the magnitude of the risks faced by investors if the load remains to be paid for the use of the company's debt is greater than the profits, which can
cause financial distress for the company (Agustina, 2016). The decision to increase the debt not only have a negative impact, but it can also have a positive impact for the company should seek to balance the benefits with the costs incurred due to debts.

**Effect of Firm Size on Stock Return**

Companies with large total assets indicates the company has reached a stage maturity which in this phase is already cash flow positive and have good prospects in a relatively long period of time, but it also reflects that the company is relatively more stable and able to generate earnings compared to total small assets (Indriani, 2005). Large size companies will build investor confidence. Increased investor confidence will increase demand for stocks and the impact on improved pricing and stock returns.

**Effect of Real Activity Manipulation on Stock Return**

Real activity manipulation undertaken short-term performance showed good company but potentially lowering the value company. Real activity manipulation do not only effect the profit improvement that occurs in a company, but also affect the performance enterprise market. Companies have ability to increase profits, tend stock price will also increase. According Husnan and Pudjiastuti (1998) companies have the ability to increase profits, stock prices also tend to rise. If the company makes a profit greater then the company will be able to distribute dividends are getting bigger and will have an effect on stock returns.

**Effect of Investment Opportunity Set on Stock Return through Real Activity Manipulation**

Companies with high investment opportunities tend to be rated positively by investors because it has a prospect of profit in the future. When a company has a high investment opportunities it value of the company will increase because more investors are interested in investing with the hope obtaining a larger return in the future. Managers become unobservable actions may cause the principal can not know whether the manager has to act in accordance with the wishes of the principal or not. Management of opportunistic behavior increased the amount accrued under management led to reported profit increases. Efficient market increase in the amount of profit will react positively by the market so the market price of the company's stock will rise, which in turn increases the amount of return obtained.

**Effect of Financial Leverage on Stock Return through Real Activity Manipulation**

The operational activities of the company is certainly supported large corporate funding level. Financial leverage demonstrates the use of debt to increase profits. Leverage can magnify the success (profit) and failure (loss) managerial. Debts are too big inhibit initiative and management flexibility to pursue opportunities benefit. The greater debt, managers seek to improve financial performance companies. If the company's financial performance did not work according to the targets planned, can reduce confidence of creditors against the company. Besides, if the specified targets are not met can encourage managers to act opportunistic company with reported earnings higher than the actual conditions. The company uses financial leverage is intended the benefits outweigh the costs of assets and sources of funds for the purpose increasing the profits shareholders.

**Effect of Firm Size on Stock Return through Real Activity Manipulation**

Firm size can determine whether or not the company's performance. Investors usually have more confidence in large companies because large corporations are able to continually improve its performance by working to improve the quality earnings. Large companies more public attention so management would be more cautious in making financial reporting the company will report its condition better, but small companies want to show the condition company always perform well so that investors invest in companies can be responded positively by the market and may increase the company’s stock price.

**RESEARCH METHODS**

The objective of studies conducted in this research is to test the hypothesis formulated to examine the effect of investment opportunity set, financial leverage and firm size on real activity manipulation and its impact on stock return. The kind of investigation in this research is causality.

The population in this research is the manufacturing companies listed in Indonesia Stock Exchange (BEI) period of 2010-2014. Samples were taken from the population using purposive sampling method or technique of sampling with certain provisions (Sugiyono, 2012). The company of samples used amount 206 observation of companies, consists of 2010 amount 36, in 2011 amount 43, in 2012 amount 42, in 2013 amount 38 and in 2014 amount 47 observation.

**Operational Variable**

Operational Variable is an the explanation of a predefined variables to be measured and drawn conclusions so as to produce an information.

1. **Investment Opportunity Set**

Investment opportunities set described the breadth of opportunity or investment opportunities for a company, but it is highly dependent on the selection of the company for the benefit expenditure in future (Norpratiwi, 2007). In assessing the investment opportunity set using market to book value of ratio (Adam dan Goyal, 2008).
2. Financial Leverage

Financial leverage described use of assets or fund company where the use funds or assets company must pay fixed. In assessing the financial leverage using debt equity ratio (Weston dan Thomas, 2002).

\[
\text{DER} = \frac{\text{Total Debt}}{\text{Total Asset}}
\]

3. Firm size

Firm size described the size of a company indicated total assets, total sales, average selling rate and average total assets. In assessing the firm size using total asset (Weston dan Bringham, 2001).

\[
\text{Firm size} = \log \text{ Total Asset}
\]

4. Real Activity Manipulation

Real activity manipulation is activities motivated by managers who wish to mislead some stakeholders to believe that certain financial reporting purposes have been fulfilled in normal operation. In assessing the real activity manipulation using abnormal operating cash flow (Roychowdury, 2006).

\[
\frac{\text{CFO}_t}{A_{t-1}} = \alpha (1/A_{t-1}) + \beta_1 (S_t/A_{t-1}) + \beta_2 (\Delta S_t/A_{t-1}) + \varepsilon_t
\]

5. Stock Return

Stock return is the return on investment actually received or obtained investors due to stock price changes over time (Jogiyanto, 2000).

\[
R_t = \frac{P_t - P_{t(1)}}{P_t(1)}
\]

Classic Assumption Test

Classic assumption test used in this study consists of normality test, heteroscedasticity test, multicollinearity test, autocorrelation test and correlation test.

RESULTS AND DISCUSSIONS

RESULTS:

1. Normality Test

Normality testing doing with normal probability plots comparing the cumulative distribution of the normal distribution. The curve of normality the effect of investment opportunity set, financial leverage and firm size on real activity manipulation and its impact on stock return.

Based on model used images show indications normal, where analysis of the graph above shows the points spread around diagonal line, and its distribution follows direction diagonal line.

2. Heteroscedasticity test

Heteroscedasticity testing is indication residual variance between inhomogeneous resulting in estimated values obtained are no longer efficient. Detect the presence or absence of heteroscedasticity performed using a test glejser.

The test results show the level of significance variables of financial leverage 0.637>0.05, firm size 0.076>0.05, and real activity manipulation 0.341>0.05, heteroskedastisity not occur on all three variables. But the level of significance variables of investment opportunity set 0.000<0.05, heteroskedastisity occur on investment oppurtunit set.

3. Multicollinearity test

Multicollinearity testing is used to see whether the regression model found a correlation between independent variables.

<table>
<thead>
<tr>
<th>Tolerance Value and VIF Independent Variable</th>
<th>Tolerance Value</th>
<th>VIF</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Opportunity Set</td>
<td>0.872</td>
<td>1.147</td>
<td>Non multicollinearity</td>
</tr>
<tr>
<td>Financial leverage</td>
<td>0.937</td>
<td>1.067</td>
<td>Non multicollinearity</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.927</td>
<td>1.079</td>
<td>Non multicollinearity</td>
</tr>
</tbody>
</table>
According to the table is greater than the tolerance value 0.10 and Variance Inflation Factor (VIF) less than 10, it can conclude the occurrence of multicollinearity between independent variables in the regression model.

4. **Autocorrelation test**

Autocorrelation testing conducted to test whether the linear regression model there is a correlation between the error intruder in the period t−1. The test results indicate the significance level 5% for 206 samples (n) value du = 1,809 and 4-du = 2,191. Value Durbin-Watson 1,939 is 1,809 < 1,939 < 2,191. It can be concluded no autocorrelation in the data.

5. **Correlation test**

The correlation coefficient is used to see the relationship between investment opportunity set, financial leverage, firm size, real activity manipulation and stock return, this test using *pearson correlation*.

<table>
<thead>
<tr>
<th>No</th>
<th>Relationship</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X₁ and X₂</td>
<td>0.251</td>
<td>strong positive</td>
</tr>
<tr>
<td>2</td>
<td>X₁ and X₃</td>
<td>0.270</td>
<td>strong positive</td>
</tr>
<tr>
<td>3</td>
<td>X₂ and X₃</td>
<td>0.058</td>
<td>weak positive</td>
</tr>
<tr>
<td>4</td>
<td>X₁ and Y</td>
<td>-0.002</td>
<td>no effect</td>
</tr>
<tr>
<td>5</td>
<td>X₂ and Y</td>
<td>-0.210</td>
<td>moderate negative</td>
</tr>
<tr>
<td>6</td>
<td>X₁ and Y</td>
<td>0.125</td>
<td>moderate positive</td>
</tr>
<tr>
<td>7</td>
<td>Y and Z</td>
<td>0.109</td>
<td>moderate positive</td>
</tr>
<tr>
<td>8</td>
<td>X₁ and Z</td>
<td>0.239</td>
<td>moderate positive</td>
</tr>
<tr>
<td>9</td>
<td>X₂ and Z</td>
<td>-0.066</td>
<td>weak negative</td>
</tr>
<tr>
<td>10</td>
<td>X₁ and Z</td>
<td>0.014</td>
<td>weak positive</td>
</tr>
</tbody>
</table>

Based on the calculation coefficient *pearson correlation*, variables real activity manipulation and stock return relationships moderate with the correlation value 0.109.

**Hypothesis Test Results**

**Substructures I**

Test on the effect of investment opportunity set (X₁), financial leverage (X₂), firm size (X₃) on real activity manipulation (Y) can be determined by the path coefficients with substructures equation I:

\[ Y = 0.018 X₁ + (-0.223) X₂ + 0.133 X₃ \]

**Effect of Investment Opportunity Set, Financial Leverage and Firm Size on Real Activity Manipulation**

The test results simultaneously obtained from the F test (ANOVA) probability of 0.004. Based on the ρ value (significance value) 0.004 < 0.05. The coefficient of determination (R²) obtained by (0.063≠0). It can be concluded the investment opportunity set, financial leverage and firm size has significant effect on real activity manipulation.

**Effect of Investment Opportunity Set on Real Activity Manipulation**

The results of the calculation determining the significance value 0.801 > 0.05 and path coefficient value 0.018 or 0.0003. It can be concluded the investment opportunity set has no effect on real activity manipulation. These results are consistent with research conducted Mardadi and Sanjaya (2008), Sugiaro (2015) the investment opportunity set has no effect on real activity manipulation.

**Effect of Financial Leverage on Real Activity Manipulation**

The results of the calculation determining the significance value 0.002<0.05 and path coefficient value -0.223 or 0.05. It can be concluded the financial leverage has significant effect on real activity manipulation. These results are consistent with research conducted Agustia (2013), Christiani and Sanjaya (2014) the financial leverage has a negative significant effect on real activity manipulation.

**Effect of Firm Size on Real Activity Manipulation**

The results of the calculation determining the significance value 0.062>0.05 and path coefficient value 0.133 or 0.018. It can be concluded the firm size has no effect significant on real activity manipulation. These results are consistent with research conducted Eka (2014) and Gunawan (2015) the firm size has no effect significant on real activity manipulation.

**Substructure II**

Test on the effect of investment opportunity set (X₁), financial leverage (X₂), firm size (X₃), real activity manipulation (Y) on stock return (Z) can be determined by the path coefficients with substructures equation II:

\[ Z = 0.286 X₁ + (-0.114) X₂ + (-0.068) X₃ + 0.094 Y \]

**Effect of Investment Opportunity Set, Financial Leverage, Firm Size and Real Activity Manipulation on Stock Return**

The test results simultaneously obtained from the F test (ANOVA) probability of 0.000. Based on the ρ value (significance value) 0.001 < 0.05. The coefficient of determination (R²) obtained by (0.085≠0). It can be concluded the investment opportunity set, financial leverage, firm size and real activity manipulation has
significant effect on stock return.

**Effect of Investment Opportunity Set on Stock Return**
The results of the calculation determining the significance value 0.000<0.05 and path coefficient value 0.286 or 0.082. It can be concluded the investment opportunity set has significant effect on stock return. These results are consistent with research conducted Norpratiwi (2007) and Dadri (2011) the investment opportunity set has a positive significant effect on stock return.

**Effect of Financial Leverage on Stock Return**
The results of the calculation determining the significance value 0.111>0.05 and path coefficient value -0.114 or 0.013. It can be concluded the financial leverage has no effect significant on stock return. These results are consistent with research conducted Delima (2010) and Gunarso (2014) the financial leverage has no effect significant on stock return.

**Effect of Firm Size on Stock Return**
The results of the calculation determining the significance value 0.336>0.05 and path coefficient value -0.068 or 0.005. It can be concluded the firm size has no effect on stock return. These results are consistent with research conducted Solechan (2008) the firm size has no effect on stock return.

**Effect of Real Activity Manipulation on Stock Return**
The results of the calculation determining the significance value 0.178>0.05 and path coefficient value 0.094 atau 0.01. It can be concluded the real activity manipulation has no effect significant on stock return. These results are consistent with research conducted Koyuimirs (2011) the real activity manipulation has no effect significant on stock return.

**Effect of Investment Opportunity Set on Stock Return through Real Activity Manipulation**
The results of calculations indicate indirectly effect investment opportunities set on stock return with real activity manipulation as mediating variables that effect -0.01%. Effect exerted indirectly smaller than effect obtained directly 8.2%.

**Effect of Financial Leverage on Stock Return through Real Activity Manipulation**
The results of calculations indicate indirectly effect financial leverage on stock return with real activity manipulation as mediating variables that effect 0.4%. Effect exerted indirectly smaller than effect obtained directly 1.3%.

**Effect of Firm Size on Stock Return through Real Activity Manipulation**
The results of calculations indicate indirectly effect firm size on stock return with real activity manipulation as mediating variables that effect -0.2%. Effect exerted indirectly smaller than effect obtained directly 0.5%.

In accordance with the criteria for a model test the effect of indirect developed Baron and Kenny (1986), the effect of mediation can identified :

1. Equation 1 : Y = \rho_1 X \rightarrow \rho_1 must significant (eksogen variables effect on mediating variables)
2. Equation 2 : Z = \rho_2 X \rightarrow \rho_2 must significant eksogen variables effect on endogen variables)
3. Equation 3 : Z = \rho_3 X \rightarrow \rho_3 must significant (mediating variables must significant effect on endogen variables), and if \rho_3 no significant (independent variables effect on endogen variable indirectly), then fully mediating effect (fully), if \rho_3 significant, then partially mediating effect (partially).

It can concluded that real activity manipulation does not mediate the effect of investment opportunity set, financial leverage and firm size on stock return.

**CONCLUSION AND RECOMMENDATION**

**Conclusions**
1. Investment opportunity set, financial leverage and firm size have a simultaneous significant effect on real activity manipulation
2. Investment opportunity set has no effect on real activity manipulation
3. Financial leverage has a negative significant effect on real activity manipulation
4. Firm size has no significant effect on real activity manipulation
5. Investment opportunity set, financial leverage, firm size and real activity manipulation have a simultaneous significant effect on stock return
6. Investment opportunity set has a positive significant effect on stock return
7. Financial leverage has no significant effect on stock return
8. Firm size has no significant effect on stock return
9. Real activity manipulation has no significant effect on stock return
10. Real activity manipulation does not mediate the effect of investment opportunity set on stock return
11. Real activity manipulation does not mediate the effect of financial leverage on stock return
12. Real activity manipulation does not mediate the effect of firm size on stock return.

**Recommendations**
1. It is suggested for further research to add some other factors that may effect the real activity manipulation
and stock return such as good corporate governance, information asymmetry and audit quality.

2. This study employs an internal indicator of companies; hence, it is advised for further research to use such external indicators as IFRS adoption and inflation so that, it may obtain a good conclusion.

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