The effect of firm growth on the performance of non-financial sector firms listed on the Indonesian stock exchange

Accepted 24th May, 2019

ABSTRACT

This research was conducted to examine the effect of firm asset growth on firm performance, in the non-financial sector. The researchers used panel data analysis method with purposive sampling technique, the number of samples was 142 firms in the period of 2012-2016 with the number of observations being 710. The results showed that the first model of Firm Growth (X₁) had a positive and significant effect on Firm Performance (Y), the second model of Firm Growth (X₁) also had a positive and significant effect on Firm Performance (Y), while for variable control Firm Size (X₂), Firm Age (X₃) and Firm Leverage (X₄), respectively, had a negative and significant effect on Firm Performance (Y). In the first model, the adjusted r square value was 2.58% and in the second model, it increased to 89.17%, so it was concluded that the role of the control variable has an important contribution to the increase in firm performance.

Key words: Firm performance, firm growth, firm size, firm age, firm leverage, non-financial sector.

INTRODUCTION

The phenomenon related to firm performance is a phenomenon that is always interesting to study, the ability of firms to make profits as compared with the number of assets held becomes one of the important measures in calculating the performance of a firm. ROA is one of the determining factors for the firm’s success in carrying out its business activities. If the firm is unable to quickly return its asset investment, it shows that there are problems with the firm’s profitability. According to Syamsuddin (1985), “A firm must be in a favorable condition, without the benefit, it will be very difficult for the firm to attract external capital and the creditors, the owners of the firm, especially the management of the firm, will try to increase this profit, because they realize how important is the profits for the future of the firm.”

Asset growth is one indicator of the firm’s success in optimizing the ability of its resources. Firms that have stable and consistent asset growth rates are one proof that they have been able to develop their business units well. Asset growth is one of the benchmarks of the firm’s serious efforts in managing assets owned to create better firm performance than before in optimizing the profits earned. This is in line with Riyanto (1995: 268) who said that “The faster the growth rate of the firm, the greater the funds needed and also, the greater the opportunity to make a profit”.

Non-financial sector firms were selected as research samples. This is based on the theories of Fama and French (1992) in Asnawi and Wijaya (2006: 174-175) which “do not use financial firms, with the reason that these firms have high ‘leverage’, high leverage is a normal thing for this kind of firm, but not so for other firms or industries; therefore, why is the financial industry a Regulated Industry?. This is because the financial industry provides “trust” service where this industry characteristic is very easy to break.”

LITERATURE REVIEW

Firm performance (Y)

Helfert (1996) explained, “Firm performance is the result of
many individual decisions that are made sustainably by management”. Sutrisno (2009) explained that “Information and description of financial development or performance of the firm can be obtained by making an interpretation or analysis of financial statements, which connects elements in the financial statements such as elements of various assets to the other, the elements of liabilities to the other, the elements between assets and liabilities, the elements between the balance sheet and the elements of profit and loss. From this assessment, we will be able to obtain a lot of descriptions of the financial condition or performance of the firm more thoroughly”.

Firm growth (X₁)

Asset growth according to Helfert (2000) is “The impact on the firm’s operational fund flows caused by growth or decrease in business volume”, Ayulestari and putri (2014). Asset growth is expected to have a positive impact on outsiders such as an opportunity to lend funds to the firm. The prospect of the firm that continues to experience growth for the outsiders is a profitable prospect because funds or money lent are expected to provide high returns”.

Firm size (X₂)

According to Ferry and Jones (1979) in Sujiarto (2001), “Firm size describes or reflects the size of a firm that shows the total assets, total sales, average total sales, and average total assets. So, the size of the firm is the size of assets owned by the firm”, Longenecker and Justin (2001: 16) suggested that “There are many ways to define the scale of a firm, namely by using various criteria, such as the number of employees, sales volume, and asset value”. Size proxy is usually the total assets of a firm, because assets generally can be very large in value and to avoid scale bias, the amount of assets needs to be compressed, therefore, in general, the size proxy is the used Logarithm (Log) or natural Logarithm (Ln) Assets, as explained by Asnawi and Wijaya (2006: 175).

Firm age (X₃)

The firm age according to Daljono (2000: 562) in Syafii (2013), is “the length of time the firm is able to survive, compete, and take business opportunities that exist in the economy. The age of the firm shows information that can be obtained by investors, the longer a firm operates or the older the age of the firm, the most likely it will provide more and wider information than the firm that has just been established”.

Firm leverage (X₄)

Weston and Brigham (1994) said "leverage is a condition that occurs when a firm has a fixed cost that must be borne”. Myers (1977) in Sugiarto (2009: 127-129) found evidence that “Firms prefer to use capital from retained earnings from debt or from issuing shares, known as the “Pecking order theory”, if pecking orders are correct then a lower debt-equity ratio will lead to high profitability. Thus, whatever the type of industry, the firm that has the lowest portion of debt will likely to have the highest profitability. The low leverage with the high profitability indicates the validity of the Pecking order theory”.

Research model

Model 1: \( Y_{it} = \beta_0 + \beta_1 X_{1it} + \mu_{it} \)

Model 2: \( Y_{it} = \beta_2 + \beta_3 X_{1it} + \beta_4 X_{2it} + \beta_5 X_{3it} + \beta_6 X_{4it} + \mu_{it} \)

i = cross-sectional unit; t = time identifier

Hypotheses

- **H₁**: There is a positive and significant effect of Firm Growth on Firm Performance.
- **H₂**: There is a Positive and Significant effect of Firm Size on Firm Performance.
- **H₃**: There is a Positive and Significant effect of Firm Age on Firm Performance.
- **H₄**: There is a Negative and Significant effect of Firm Leverage on Firm Performance.

RESEARCH METHODS

Type of research

The type of research was associative research conducted to determine the relationship between one variable and another. By using this research, we can determine several theories that can provide explanation, estimation, and control of a symptom (Informasi-pendidikan.com). The form of this research was causal research, which has a causal relationship, so there are variables that affect and are affected (Sugiyono, 2016: 93).

Source and data type

The data obtained in the research were secondary data from the Indonesia Stock Exchange website. The type of research data was in the form of quantitative data, that is, data in the form of numbers, or qualitative data. Quantitative data itself is divided into two: discrete data and continuum data. The researchers obtained the data in the form of a continuum, because they are continuous in one line and also were obtained from the measurement results. Continuous data itself is divided into three: ordinal data, interval data, and ratio data. The researchers selected
Table 1: Variables and measurement.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Variable Type</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm performance</td>
<td>( \frac{Earnings \ Before \ Tax}{Total \ Assets} )</td>
<td>Dependent</td>
<td>Abbasiet al., 2015</td>
</tr>
<tr>
<td>Firm growth</td>
<td>( \frac{curr. \ year \ assets - prev. \ year \ assets}{prev. \ year \ assets} )</td>
<td>Independent</td>
<td>Abbasi et al., 2015</td>
</tr>
<tr>
<td>Firm size</td>
<td>( Firm \ Size = \ln \ Total \ Aset )</td>
<td>Control</td>
<td>Niresh and Velnampy: 2014</td>
</tr>
<tr>
<td>Firm age</td>
<td>( \ln (Tahun \ penelitian - tahun \ berdiri) )</td>
<td>Control</td>
<td>Syafi’I, 2013</td>
</tr>
<tr>
<td>Firm leverage</td>
<td>( \frac{Total \ Liabilities}{Total \ Equity} )</td>
<td>Control</td>
<td>Fahmi, 2011:128</td>
</tr>
</tbody>
</table>

The ratio data because according to the data sources and variables that would be examined carefully, the ratio data are quantitative data continuum which have the same distance and absolute zero value. (Sugiyono, 2016: 28-31). The ratio data has the highest data position which has an original zero value, this data can already use measurements such as arithmetic or geometric mean and other dissipations, data with ratio scale is the best data that can be used (Asnawi and Wijaya, 2006: 11). This research used panel data which can be defined as a data set where cross-sectional behavior (eg individuals, firms, countries) is observed over time (time series) (Ghozali and Ratmono, 2013: 231).

Population and sample

The population of this research were all non-financial sector firms listed on the Indonesia Stock Exchange, which had an IPO starting in 2012 (idc.co.id). The sample in this research used the following criteria:

1. Non-financial sector firms listed on the Indonesia Stock Exchange (The sectors used are the Agriculture Sector, Mining sector, Basic Industrial and Chemical sectors, Miscellaneous Industry sector, Goods and Consumption Industry sector, Real Estate Property sector and building construction, Utilities and Transportation Infrastructure sector, Trade, Services and Investment sector).
2. Firms that have a maximum IPO in 2012
4. Firms that have positive profits, for each research period.

After passing the selection phase above, there were 142 firms (cross-section) from 2012-2016 (time series), so that there were 710 observation points (Table 1).

Data collection technique

Non-test data collection techniques, by recording documents, show that documents can be in the form of writing, pictures or monumental works from someone, and contain records of past events (Sugiyono, 2016: 396). This research used Software Eviews 10, which is one of the multivariate and econometric data analysis software that is well known for its ability to process various types of data such as cross-section, time series, and panel (Ghozali and Ratmono, 2013: 13).

ANALYSIS AND DISCUSSION

Descriptive statistics

Table 2 shows the following: variable Y (firm performance) had a mean value of 0.061400 (6.14%), maximum value of 0.289700 (28.97%) and minimum value of 0.000500 (0.05%). Variable X1 (firm growth) had a mean value of 0.144468 (14.44%), maximum value of 0.748800 (74.88%) and minimum value of -0.330100 (-33.01%). Variable X2 (total assets of the firm) had a mean value of Rp. 354,454,372.4 million, maximum value of Rp. 261,854,614,181,000 and minimum value of Rp. 132,279,184,000. Variable X3 (firm age) had a mean value of 29,916 years, maximum value of 116 years and minimum value of 3 years. Variable X4 (firm leverage) had a mean value of 0.794 x, maximum value of 7,400 x, and minimum value of 0.080 x.

Classic assumption test

Multicollinearity

The condition of the existence of a linear relationship or strong correlation between variables that are in the research model.

The test is done by looking at the correlation number of each variable, if it is less than 0.8. It has been stated that in the research model there are no symptoms of
multicollinearity. Based on the output of the correlation matrix in Table 3, all of them had values less than 0.8, so it was concluded that there were no symptoms of multicollinearity between independent variables.

**Heteroscedasticity**

Testing is carried out if the Probability value > 0.05 and then it is stated that there is no heteroscedasticity symptom. In model 1 and model 2, all had a probability value > 0.05, so it was concluded that there was no heteroscedasticity symptom (Table 4).

**Selection of model (estimation technique) data panel regression**

Chow test, Hausman test, LM test, and selection of the best model are shown in Tables 5 to 8, respectively. The conclusion was that for model 1, random effect was selected and for model 2, Fixed Effect was selected.

**RESULTS AND DISCUSSION**

**Goodness of fit model**

Table 9 shows that the probability value of F on the model was 0.000, which means it was smaller than 0.05, so it can be concluded that the linear regression model was worth estimating.

Regressions Coefficient Test (t test)

The test is done if the Probability value < 0.05, and then it is stated that the independent variable partially has a significant effect on the dependent variable. Table 10 shows that:

**Model 1:**
- Probability Value of $X_1$ was 0.0000, it was < 0.05 (Significant)

**Model 2:**
- Probability Value of $X_1$ was 0.0002, it was < 0.05 (Significant)
- Probability Value of $X_2$ was 0.0000, it was < 0.05 (Significant)
- Probability Value of $X_3$ was 0.0072, it was < 0.05 (Significant)
- Probability Value of $X_4$ was 0.0000, it was < 0.05 (Significant)

**Hypotheses**

$H_1$: There is a positive and significant effect of Firm Growth on Firm Performance. **(Accepted)**

$H_2$: There is a Positive and Significant effect of Firm Size on Firm Performance. **(Rejected)**
Table 4: Model heteroscedasticity test.

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th>Dependent Variable: ABS(RESID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>$X_1$</td>
<td>0.026664</td>
</tr>
<tr>
<td>$C$</td>
<td>0.077223</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th>Dependent Variable: ABS(RESID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>$X_1$</td>
<td>-0.002753</td>
</tr>
<tr>
<td>$X_2$</td>
<td>0.004452</td>
</tr>
<tr>
<td>$X_3$</td>
<td>0.005294</td>
</tr>
<tr>
<td>$X_4$</td>
<td>-0.006319</td>
</tr>
<tr>
<td>$C$</td>
<td>-0.050290</td>
</tr>
</tbody>
</table>

*Note: $X_1$ = Asset growth, $X_2$ = Total Asset, $X_3$ = Firm age, $X_4$ = DER*

Table 5: Chow test.

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th>Effects test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Cross-section F</td>
<td>10.113776</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>892.511388</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th>Effects test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Cross-section F</td>
<td>10.155200</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>897.289239</td>
</tr>
</tbody>
</table>

Table 6: Hausman test.

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th>Test Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-Sq. Statistic</td>
</tr>
<tr>
<td>Cross-section random</td>
<td>0.255543</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th>Test Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-Sq. Statistic</td>
</tr>
<tr>
<td>Cross-section random</td>
<td>79.576248</td>
</tr>
</tbody>
</table>

Table 7: LM test.

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th>Cross-section</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan</td>
<td>588.9751</td>
<td>83.63947</td>
<td>672.6145</td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
<td>(0.0000)</td>
<td>(0.0000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th>Cross-section</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan</td>
<td>487.5343</td>
<td>127.4538</td>
<td>614.9881</td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
<td>(0.0000)</td>
<td>(0.0000)</td>
</tr>
</tbody>
</table>
Table 8: Selection of the best model

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Selection</th>
<th>Decision</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test</td>
<td>Common effect</td>
<td>Fixed effect</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>Fixed effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'Hausman Test</td>
<td>Random effect</td>
<td>Fixed effect</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>Fixed effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM Test</td>
<td>Common effect</td>
<td>Random effect</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>Random effect</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Goodness of fit model (F test).

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>19.84661</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000010</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>41.28374</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
</tr>
</tbody>
</table>

Table 10: t test.

<table>
<thead>
<tr>
<th>MODEL 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Std. Error</td>
</tr>
<tr>
<td>X1</td>
<td>0.077649</td>
<td>0.017439</td>
</tr>
<tr>
<td>C</td>
<td>0.236401</td>
<td>0.007592</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Std. Error</td>
</tr>
<tr>
<td>X1</td>
<td>0.062881</td>
<td>0.011468</td>
</tr>
<tr>
<td>X2</td>
<td>-0.067895</td>
<td>0.008266</td>
</tr>
<tr>
<td>X3</td>
<td>-0.076693</td>
<td>0.028410</td>
</tr>
<tr>
<td>X4</td>
<td>-0.052826</td>
<td>0.005792</td>
</tr>
<tr>
<td>C</td>
<td>1.510882</td>
<td>0.085067</td>
</tr>
</tbody>
</table>

H3: There is a Positive and Significant effect of Firm Age on Firm Performance. (Rejected)

H4: There is a Negative and Significant effect of Firm Leverage on Firm Performance. (Accepted)

Structural model

**Model 1:** \[ Y = 0.0776488834707 \times X_1 + 0.236401327731 + [CX=R] \]

**Model 2:** \[ Y = 0.0628808149973 \times X_1 - 0.0678945274701 \times X_2 - 0.0766925670433 \times X_3 - 0.0528260348987 \times X_4 + 1.51088224887 + [CX=F] \]

**Determination coefficient**

Table 11 shows that model 1 had the value of Adjusted R Square of 0.025894 which means that the regression model was able to predict 2.58%. Then for model 2, the value of Adjusted R Squares increased to 0.891758 which means the regression model was able to predict 89.17%.

**Interpretation of linear regression models (multiple)**

1). The \( X_1 \) beta coefficient value was 0.062881 which means that each change in one unit of \( X_1 \) can result in a change in \( Y \)
Table 11: R squared correction value.

<table>
<thead>
<tr>
<th>MODEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
</tr>
</tbody>
</table>

Table 12: Example of sample size (X3) and performance (Y).

<table>
<thead>
<tr>
<th>IDX</th>
<th>YEAR</th>
<th>ROA (%)</th>
<th>SIZE (M Rupiahs)</th>
<th>IDX</th>
<th>YEAR</th>
<th>ROA (%)</th>
<th>SIZE (M Rupiahs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TKIM</td>
<td>2012</td>
<td>1.30</td>
<td>25,935,346</td>
<td>ASGR</td>
<td>2012</td>
<td>13.81</td>
<td>1,239,927</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>1.04</td>
<td>31,962,810</td>
<td></td>
<td>2013</td>
<td>14.40</td>
<td>1,451,020</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>0.76</td>
<td>33,713,200</td>
<td></td>
<td>2014</td>
<td>15.93</td>
<td>1,633,339</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>0.05</td>
<td>39,337,527</td>
<td></td>
<td>2015</td>
<td>14.65</td>
<td>1,810,083</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>0.43</td>
<td>33,867,849</td>
<td></td>
<td>2016</td>
<td>7.99</td>
<td>1,719,892</td>
</tr>
<tr>
<td>INDR</td>
<td>2012</td>
<td>0.14</td>
<td>6,653,020</td>
<td>MERK</td>
<td>2012</td>
<td>18.93</td>
<td>569,431</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>0.22</td>
<td>8,796,268</td>
<td></td>
<td>2013</td>
<td>25.17</td>
<td>696,946</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>0.54</td>
<td>9,217,073</td>
<td></td>
<td>2014</td>
<td>25.32</td>
<td>716,600</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>1.26</td>
<td>11,796,705</td>
<td></td>
<td>2015</td>
<td>22.22</td>
<td>641,647</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>0.19</td>
<td>11,059,490</td>
<td></td>
<td>2016</td>
<td>17.61</td>
<td>712,389</td>
</tr>
<tr>
<td>INKP</td>
<td>2012</td>
<td>0.75</td>
<td>64,281,325</td>
<td>CASS</td>
<td>2012</td>
<td>23.83</td>
<td>795,015</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>3.26</td>
<td>83,156,170</td>
<td></td>
<td>2013</td>
<td>27.28</td>
<td>916,594</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>1.94</td>
<td>81,073,679</td>
<td></td>
<td>2014</td>
<td>24.85</td>
<td>1,085,460</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>3.16</td>
<td>103,162,005</td>
<td></td>
<td>2015</td>
<td>22.94</td>
<td>1,279,507</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>1.42</td>
<td>89,078,673</td>
<td></td>
<td>2016</td>
<td>13.28</td>
<td>1,540,726</td>
</tr>
</tbody>
</table>


by 0.062881%
2). The X2 beta coefficient value was -0.067895 which means that each change in one percent of X2 can result in a change in Y by -0.067895 %
3). The X3 beta coefficient value was -0.076693 which means that each change in one percent of X3 can result in a change in Y by -0.076693 %
4). The X4 beta coefficient value was -0.052826 which means that each change in one percent of X4 can result in a change in Y by -0.052826 %

Based on the results of the analysis using the panel data regression equation through the Fixed effect method on model 2, then:

1). The probability value of X1 was 0.0000 < 0.05 to Y, so it can be said that the firm growth (X1) has a significant effect on improving the firm performance (Y) in the non-financial sector. The increase in firm growth (X1) was one unit, causing a significant increase in the firm performance (Y) of 0.06288 (6.288%). This result is supported by research conducted by Sari and Abundanti (2014) who stated that firm growth (X1) has a positive and significant effect on firm performance (Y).
2). The probability value of X2 was 0.0000 < 0.05 to Y, so it can be said that the firm size (X3) has a significant effect on the decline in the firm performance (Y) in the non-financial sector. The size of the firm's assets (X3) actually causes a significant reduction in firm performance (Y), this is confirmed through the sample used (Table 12), where firms that have large assets show low performance, or vice versa, firms with few assets show high performance. As regards firm's financial statements, the present study found that firms with large assets and low performance have a high operating load, cost of goods sold and interest expense, which cause the firm to not have optimal performance. This result is in line with the research conducted by Isibanah (2015), Hariyanto and Juniarti (2014) and Kartikasari and Merianti (2016), who also concluded that firm size has a negative and significant effect on firm performance. But on the contrary, in the research of Pervan et al (2017) and Arisadi et al. (2013), it was stated that the firm size is significantly positive for firm performance.
3). Increasing amount of firm assets (X3) by one percent causes a significant decrease in firm performance (Y) of 0.06789 (6.789%)
4). The probability value of X4 was 0.0072 <0.05 to Y, therefore, it can be said that the size of the firm age (X4) significantly affects the decline the firm performance (Y) in the non-financial sector. The firm age (X4) causes a
significant decrease or reduction in firm performance (Y), this is confirmed by the research sample used shown in Table 13. In in study, based on the firm’s financial statements, it was found that firms that are young or new have flexibility in adding its products and services, expanding to industries that have been mastered and can determine new consumer reach targets. Besides that, the firm's life cycle in the growth phase actually showed an increase in profit as compared with firms in the maturity phase.

5). This result is in line with the studies conducted by Loderer and Waechli (2010) and Pervan et al. (2017), who also concluded that the firm age had a negative and significant effect on firm performance. But on the contrary, the research by Fachrudin (2011) stated that firm leverage has a positive and significant effect on firm performance.

9). The ability of the second model in describing the dependent variable (firm performance) with the verified best model (fixed effect) shows the relationship between firm growth (X₁) on firm performance (Y), the firm asset’s size (X₂), firm age (X₃) and the firm’s debt ratio (X₄) as a control variable (experiencing a significant increase) of 0.891758 or 89.17%, the rest were affected by other factors outside the model.

### CONCLUSIONS

1). Partial testing shows that the firm growth variable (X₁) has a positive and significant effect on Firm Performance (Y).

20). Partial testing shows that the Firm Asset (X₂), Firm Age (X₃) and Firm Leverage (X₄) variables have a negative and significant effect on Firm Performance (Y).

3). Simultaneous testing shows that the Firm Asset (X₂), Firm Age (X₃) and Firm Leverage (X₄) variables have a positive and significant effect on Firm Performance (Y).

4). In the first model, the adjusted r square value was only 2.58%, but in the second model, this value increased to 89.17%, so it can be concluded that the addition of control variables have a large effect on the ability of the model to predict the variable of firm performance.

### Suggestions

Non-financial sector firms listed on the Indonesia Stock Exchange in the 2012-2016 period will be able to improve
significant performance if they pay attention to the firm's asset growth factors and are able to control firm assets, firm age, and firm leverage. Future research is expected to use other research variables such as Corporate Governance, CSR, Business Risk, and others.

REFERENCES


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