

## The Effect of Financial Leverage, Employee Stock Ownership Program and Firm Size on Firm Performance of Companies Listed in Indonesia Stock Exchange

Nurainun Bangun<sup>✉</sup> F.X. Kurniawan Tjakrawala, Kurniati W. Andani, Linda Santioso

Faculty of Economics, Tarumanagara University, Jakarta, Indonesia

---

### Info Articles

#### History Articles:

Received 1 December 2016

Accepted 15 January 2017

Published 8 August 2017

#### Keywords:

Financial Leverage (proxy DER), Firm Size, Employee Stock Ownership Program (ESOP), Return on Assets and Return on Equity.

### Abstract

The purpose of this research is to examine and to obtain affected empirical evidence of financial leverage, firm size and employee stock ownership program (ESOP) to firm performance in manufacturing company in Indonesian Stock Exchange on 2013-2015. Independent variables in this research are Financial Leverage (DER), Firm Size and Employee Stock Ownership Program (ESOP). Dependent variables in this research are Return on Assets (ROA) and Return On Equity (ROE). The results Showed that the simultaneous test of three independent variables Significantly affected to the ROA and ROE. The partial tests of Financial Leverage (proxy DER) and Firm Size Significantly affected to ROA and ROE. But, the results Showed that the Employee Stock Ownership Program (ESOP) did not Affect to ROA and ROE.

---

<sup>✉</sup> Address Correspondence:

Jalan Letjen S. Parman No. 1, Tomang, Grogol petamburan,  
RT.6/RW.16, Jakarta Barat, 11440

e-ISSN 2549-0303

## INTRODUCTION

A company can measure its financial condition both the success and failure of the company's performance using the tools of financial analysis using the Return On Asset (ROA) and Return On Equity (ROE). Return On Assets (ROA) is an important ratio that can be used to measure the ability of companies with investments made (its assets) at a profit (Hutomo, 2015). The size of the company (firm size) has a relationship with the company's financial structure. Where Trisusilowati (2006) in Mar'ati and Purnomo (2011), said on choosing financing ways, big companies whose shares are owned by a lot of people will choose additional common stock sales because these sales will not have much affect control of the company. Instead of small companies may prefer to avoid the issuance of common shares in its effort to keep control of the company entirely.

Economic resources including funding is also a paramount in maximizing the profitability of the company (Ningrum, 2014). Funding is an activity that adds to the economic mainstream in the enterprise. Funding can be obtained from internal and external sources, alternative funding can encourage organizations to increase the value and performance in generating profits and creating a competitive advantage if the economic resources obtained will be used effectively and efficiently. One alternative funding policy is quite important is the financial leverage (debt financing) (Ningrum, 2014). Leverage ratio (solvency ratio) measures the amount of debt used to finance business activities when compared with their own capital, as well as how big the debt is allocated to finance its assets (Kashmir, 2014: 113). In this study researchers only use debt to equity ratio (DER) as a proxy of variable leverage.

Each company uses a variety of ways to improve company performance. In addition to using long-term debt (leverage) and strategy of diversification, there are other ways that can be used as a tool to improve performance ie Employee Stock Ownership Program (ESOP). According to Bapenam (2002) in Rachmawati (2013) stated that the Employee Stock Ownership Program (ESOP) is an employee stock ownership program over the shares of the company where the employee works. The share purchase has been determined both price and date in accordance with the provisions of the company.

Several previous studies linking leverage, employee stock ownership program (ESOP) and firm size and corporate performance (using proxy ROA and ROE) produced mixed results. The leverage ratio used in the study Jihan (2015) is covering the debt to asset ratio (DAR), debt to equity ratio (DER), and times interest earned ratio (TIER), and found the result that there is a positive influence between the DER on ROE. While another case, according to the Copyright, Dewi, and the Kirya (2015: 8) found that the negative influence of DER to ROA. According to Dewi and Hatane (2015) found a positive effect of the Employee Stock Ownership Program (ESOP) and Return On Equity (ROE), which became one of the proxies in the performance of researchers. Meanwhile, According to Hartono and Wibowo (2014), there were no positive influence between the Employee Stock Ownership Program (ESOP) with the company's performance. Meanwhile, according to Primadanti (2013), firm size has a positive significant effect on ROA, but has no effect on ROE. Meanwhile, according to Niresh and Velnampy (2014), firm size does not have a significant impact on profitability because of the separation of ownership from management in the modern enterprise, which shifted the focus of managers towards maximization of profit maximization managerial skills.

## LITERATURE REVIEW

### Stakeholder Theory

According to Lawrence and Weber (2008: 7), Stakeholder refers to people and groups that Affect or are affected by the decisions, policies, and operations company. To explain returns to

stakeholders, value added is a measure that is more accurate in measuring return for stakeholders. As part of its responsibilities to stakeholders, management companies must be able to manage all the resources, both financial resources, as well as non-financial resources of the company in efforts to create added value for the company. If all the resources owned by the company can be managed and utilized properly it will create added value for the company, so as to generate greater profits and improve financial performance.

### **Agency Theory**

Agency theory becomes a theory which has close links with the company's performance as well as the Employee Stock Ownership Program (ESOP) because, according to Anthony and Govindarajan (2007: 530-533) in Priansyah (2016), agency theory assumes that if the contract incentives such as bonuses, commissions, or stock options granted based on the size of the performance of the agent, then the agent will be more interested in improving the performance of an incentive to get more. Agency theory mentions the existence of agency cost which represent costs incurred by shareholders who entrust the company on the part of managers and employees to organize and run the company in order to maximize the return to the principals (Pugh, 2000 in Hartono and Wibowo, 2014).

### **Firm Performance**

Chanda and Shen (2009: 88) states that financial performance judged on a variety of financial ratio analysis. Financial ratio analysis can be used to analyze the existing financial statements and pro forma financial statements. Financial ratios can also help identify weaknesses and strengths of the company's financial perspective, as well as providing a way to do a comparison of financial data.

The main objective of financial performance measurement is to determine the level of profitability. Measurement of profitability in this study is the ROA and ROE. ROA to determine the impact of firm size, employee stock ownership program and the use of financial leverage on assets (ROA), ROE to determine whether the company can increase the return on investors, since equity is one of the capital used by companies to get the company's resources.

### **Return on Assets (ROA)**

Weygandt, Kimmel and Kieso (2013: 700) states that ROA is an overall measure of profitability is return on assets. We compute this ratio by dividing net income by average assets.

### **Return on Equity (ROE)**

Weygandt, Kimmel and Kieso (2013: 700) states that ROE is an another widely used profitability ratio is return on ordinary shareholders' equity. It measures profitability from ordinary shareholders' viewpoint. This ratio shows how many euros of net income the company earned euro invested by the owners. We compute it by dividing net income available to ordinary shareholders 'by average ordinary shareholders' equity.

### **Financial Leverage**

Financial leverage is a measure of how much the company uses capital and debt to finance its assets (Enekwe et al. 2014). Financial leverage can be used by companies to meet the funding needs of the company so that the company can operate, invest and develop their business. Financial leverage is expected to provide additional advantages greater for shareholders. It is based on a fixed amount of interest expense on the debt can reduce the amount of tax. However, financial leverage can also adversely affect the company because of the high financial leverage will cause financial difficulties because of its debt obligations. (Ningrum, 2014)

### **Debt-Equity Ratio (DER)**

Leverage in this study proxied by the Debt Equity Ratio (DER). Selection of Debt Equity Ratio (DER) as a proxy based on the leverage ratio is used by investors to see how much debt the company when compared to equity held by the company or its shareholders.

### **Employee Stock Ownership Program (ESOP)**

According to Bergstein & Williams (2013) in Haosana and Hatane (2015) ESOP is a unique financial tool for continuing business success by providing the employee stock ownership of the business. Employee Stock Ownership Plans is a company where the company contributes part of its own shares or cash to be used to buy shares to a trust (the trust) was established to buy part of the company's shares for employees. Stock options are granted directly to the individual employee to use as they are, if deemed fit, not into a pension trust (Dessler.G, 2007).

### **Hypothesis**

Based on the description in the literature review above, hence writer formulate the research hypothesis as follows:

H1a: Financial Leverage has a positive and significant effect on firm performance (ROA proxy).

H1b: Financial Leverage has a positive and significant effect on the firm performance (proxy ROE).

H2a: Firm Size has a positive and significant effect on firm performance (ROA proxy).

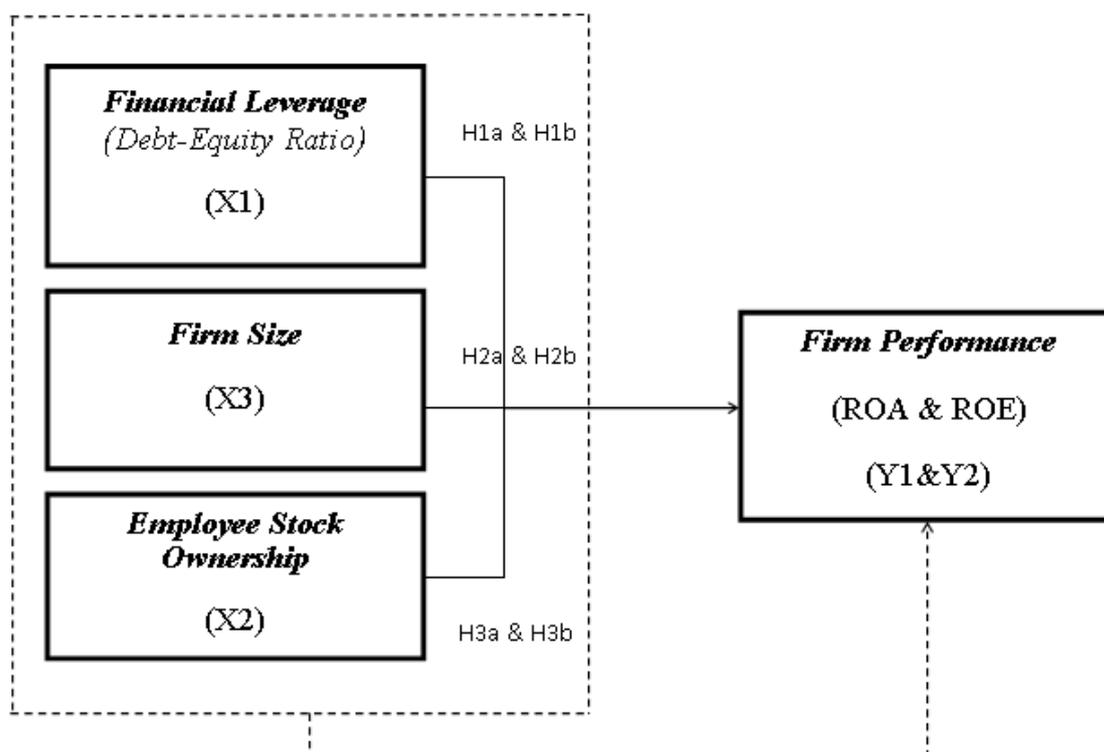
H2b: Firm Size has a positive and significant effect on the firm performance (proxy ROE).

H3a: Employee Stock Ownership Program (ESOP) has a positive and significant effect on firm performance (ROA proxy).

H3b: Employee Stock Ownership Program (ESOP) has a positive and significant effect on the firm performance (proxy ROE).

### **Research Model**

This research was conducted using secondary data to observe and analyze the research object consisting of independent variables and the dependent variable. The independent variable is the Employee Stock Ownership Program, Firm Size, Financial Leverage proxied by the Debt-Equity Ratio (DER) Dependent variable was ROA (Return on Assets) and ROE (Return on Equity) memproksikan financial performance. Subjects used in this research is manufacturing companies listed in Indonesia Stock Exchange in 2013-2015. Data were analyzed with SPSS V.21. The research model can be described as follows:



## METHODOLOGY

### Research's Object Selection

This study observed and analyzed the research object consisting of independent variables and the dependent variable. The independent variable is the Employee Stock Ownership Program, Firm Size, Financial Leverage proxied by the Debt-Equity Ratio (DER) Dependent variable was ROA (Return on Assets) and ROE (Return on Equity) representing firm performance. Subjects used in this research is manufacturing companies listed in Indonesia Stock Exchange in 2013-2015.

### Sampling Method

The population in this study are all manufacturing companies listed in Indonesia Stock Exchange and publish the financial statements in the year 2013-2015. By using as many as 53 companies as research samples. Sample selection technique used in this research is purposive sampling method in which the methods used take samples drawn from the population must meet the criteria established researchers. Criteria established by the researchers is: a. Manufacturing companies listed in Indonesia Stock Exchange period 2013 - 2015; b. Companies that publishes financial reports per period audited use Rupiah (IDR) as well as complete for use as research information; c. Manufacturing company which has several business segments within the company.

**Table 1.** Sample Selection Process

Criteria	Number of Companies	Data Sample
Jumlah perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia pada tahun 2013-2015	143	429
Perusahaan yang tidak mempublikasikan laporan keuangan per	(19)	(57)

Criteria	Number of Companies	Data Sample
periode yang telah diaudit		
Perusahaan yang tidak menggunakan mata uang Rupiah (Rp) serta lengkap untuk digunakan sebagai informasi	(24)	(72)
Perusahaan manufaktur yang tidak memiliki beberapa segmen usaha di dalam perusahaan	(28)	(84)
Total before outlier test	72	216
The number of samples that must be removed after outlier test	(19)	(57)
Total	53	159

### Variable Operationalization

The independent variables in this study are the Firm Size, Employee Stock Ownership Program and Financial Leverage, while the dependent variable is the Return on Assets and Return on Equity representing firm performance.

**Table 2.** Variable Operationalization Matrix

Variabel	Dimension	Indicator
<i>Employee Stock Ownership Program (ESOP)</i>	Plan the company makes to contribute part of its own shares or cash to be used to buy shares to a trust which established to buy part of the company's shares for employees.	<i>Employee Stock Ownership Program (ESOP)</i>
<i>Firm Size</i>	Firm size is a large-scale to small companies classified according to a variety of ways, including: total assets, log size, the stock market value, and others (Isbanah, 2015). In this study, the variable firm size measured by the natural logarithm of total assets	n. Log ( <i>Total Assets</i> )
DER	Describing how much debt compared to equity held by the company	$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}}$
ROE	Demonstrates the success of management in maximizing returns to shareholders	$ROE = \frac{\text{Earning after Tax}}{\text{Total Equity}}$
ROA	Measuring the return on optimizing the use of company assets	$ROA = \frac{\text{Earning after Tax}}{\text{Total Asset}}$

### Data Collection Technique

Data collection techniques are methods used to obtain the required data in a study. Data collection techniques in this study conducted by literature research and field research. The research literature is useful to get a literature review that will be used as a guide and a guide in conducting research and making discussion of the results will be more systematic. With a library research found many theoretical and empirical studies that have been done before to support this research. Field research is useful for gathering data related to this study, field research carried out by collecting the annual financial statements of various companies that have been audited by a public accountant and has been published during the study period. How to obtain secondary data is through [www.idx.co.id](http://www.idx.co.id) and on the official web site of the company.

### Data Processing Techniques

The data obtained will be processed and analyzed using the methods of electronic data processing, using SPSS Software V.21. Data processing techniques used in this research is multiple regression analysis techniques which states that allegedly independent variables (firm size, employee stock ownership program and financial leverage) effect on the dependent variable (firm performance).

### Analysis Method

Statistical test equipment used to test the hypothesis is multiple linear regression, to test whether the independent variables affect the dependent variable with a significant level of 5% ( $\alpha = 0.05$ ). Models of multiple linear equations used are as follows:

Hypothesis testing using multiple linear regression analysis model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Description:

- Y = The predicted value of dependent variables, namely ROE & ROA companies
- $\beta_0$  = Constanta
- $\beta_1, \beta_2, \beta_3$  = Regression coefficient of each independent variable
- $X_1$  = Independent variable *Firm Size*
- $X_2$  = Independent variable *Financial Leverage*
- $X_3$  = Independent variable *Employee Stock Ownership Program*
- $\epsilon$  = error term

## RESULT AND ANALYSIS

### Descriptive Statistics

**Tabel 3** - Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	159,0004	,2615	,076321	,0509706	
ROE	159,0006	,3691	,125083	,0719299	
LEV	159,0793	2,9030	,810501	,5604140	
FS	1594,9098	7,8474	6,413997	7,7220258	
ESOP	159,0000	1,0000	,132075	,3396425	
Valid N (listwise)	159				

In Table 3 the data processing is done using the proxy Return On Asset (ROA) & Return on Equity (ROE) representing firm performance as the dependent variable, and use the 53 companies with the 3-year period running from 2013 to 2015 year, which resulted in 159 samples as the study sample (N). Shown in the table above that the ROA has a minimum value of 0.0004, whereas the maximum value of 0.2615, the value of the average (mean) of 0.076321, indicating that the average company has a high return assets amounted to 0.076321, as well as producing standard deviation of 0.0509706. Shown in Table 3, that the ROE has a minimum value of 0.0006, whereas the maximum value of 0.3691, the value of the average (mean) of 0.125083, indicating that the average company has a return on equity of 0, 125 083, and has a standard deviation of 0.0509706.

**Multicollinearity Test**

Multicollinearity test can be seen from (1) the value of tolerance and the opponent (2) variance inflation factor (VIF). Cutoff value that is commonly used to indicate the multicollinearity presence. Tolerance is a value  $\leq 0.10$  or equal to  $VIF \geq 10$  (Ghozali, 2016: 103). With the results obtained from the tolerance test chart below multicollinearity test showed more than 0.10, it can be concluded not happen multicollinearity. VIF for the results obtained from testing multicollinearity test figures show over 10, it can be concluded that no multicollinearity. Thus all three variables used in this study as a linear regression model that is financial leverage, firm size and Employee Stock Ownership Program (ESOP) has been qualified to predict the Return on Assets (ROA) and Return on Equity (ROE)

**Table 4.** Multicollinearity Test (ROA as Dependent Variable)

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients			Standardized Coefficientst	Sig. Collinearity Statistics	
	B	Std. Error	Beta		Tolerance	VIF
(Constant)	-,047	,032			-1,496	,137
1 LEV	-,045	,006	-,492		-7,338	,000,963
FS	,025	,005	,357		5,056	,000,871
ESOP	-,011	,011	-,073		-1,031	,304,855

a. Dependent Variable: ROA

**Table 5.** Test Multicollinearity (ROE as Dependent Variable)

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients			Standardized Coefficientst	Sig. Collinearity Statistics	
	B	Std. Error	Beta		Tolerance	VIF
(Constant)	-,095	,050			-1,886	,061
1 LEV	-,023	,010	-,179		-2,374	,019,963
FS	,037	,008	,375		4,730	,000,871
ESOP	-,009	,017	-,041		-,507	,613,855

a. Dependent Variable: ROE

Based on the tables 4 and 5, with the tolerance results obtained from testing multicollinearity that showed more than 0.10, it can be concluded that the relationship has no multicollinearity. VIF for the results obtained from testing multicollinearity test figures show over 10, it can be concluded that the relationship has no multicollinearity. Thus all three variables used in this study as a linear regression model that is financial leverage, firm size and Employee Stock Ownership Program (ESOP) has been qualified to predict the Return on Assets (ROA) and Return On Equity (ROE).

**Normality Test**

Normality test is done to determine how the normal distribution of data. The significance of the independent variables on the dependent variable through t test can only be applied when the residuals have a normal distribution. Normality test is done with the Kolmogorov-Smirnov test. Kolmogorov-Smirnov test can be performed to test whether the residuals are normally distributed. Data will be said to be normally distributed if the value of the Kolmogorov-Smirnov and significantly higher than  $\alpha$  (0.05) (Ghozali, 2016: 169-170).

If the level of significance of the resulting data is smaller than 0.05 means between the dependent and independent variables were not normally distributed. Whereas, if the level of significance of the resulting data is greater than 0.05 means that the normal distribution occurs between the dependent and independent variables. Results of testing normality test presented in tables 6 and 7 as follows.

**Table 6.** Normality Test - *ROA*

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		159
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	,04179914
Most Extreme Differences	Absolute	,062
	Positive	,062
	Negative	-,034
Kolmogorov-Smirnov Z		,777
Asymp. Sig. (2-tailed)		,582

a. Test distribution is Normal.

b. Calculated from data.

From the table above, test One-Sample Kolmogorov-Smirnov Test for Return On Asset (ROA) with sample (N) as many as 159 samples, generating significant value of 0.582 with 0.777 probability far above  $\alpha = 0.05$ , it can be concluded that meet the assumptions of normality test and the data were normally distributed.

**Table 7.** Normality Test - *ROE*

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		162
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	,06672938
Most Extreme Differences	Absolute	,067
	Positive	,067
	Negative	-,033
Kolmogorov-Smirnov Z		,857
Asymp. Sig. (2-tailed)		,455

a. Test distribution is Normal.

b. Calculated from data.

From the table above, test One-Sample Kolmogorov-Smirnov Test for Return On Equity (ROE) with sample (N) of 153 samples, generating significant value of 0.455 with 0.857 probability far above  $\alpha = 0.05$ , it can be concluded that meet the assumptions of normality test and the data were normally distributed.

### Autocorrelation Test

Autocorrelation test showed regression residual properties which are not free from one observation to another observation (Ariefianto, 2012b: 26-27). To determine whether there is

autocorrelation can test Durbin Watson (DW). DW test using statistical test d, by lowering the lower limit of the critical value (dL) and the upper limit (dU). Statistical value of this test ranged from 0 through 4. d value of 2.00 is when there are no autocorrelation between residuals. At the time d close to 0, it indicates positive autocorrelation. At the time of d approaching 4, it shows a negative autocorrelation (Widarjono, 2010c: 99). Lower limit value (dL) and the upper limit (dU) depending on the number of variables and the number of observations used in the study were obtained from statistical tables Durbin Watson. Results of testing autokolerasi test presented in Table 8 and 9 to explain the results of the test as follows.

**Table 8.** Autocorrelation Test (ROA)

Model Summary<sup>b</sup>

Model R	R Square	Durbin-Watson
1	,572 <sup>a</sup> ,327	1,898

a. Predictors: (Constant), ESOP, LEV, FS

b. Dependent Variable: ROA

Based on Table 8 above, using the Return On Asset (ROA) as the dependent variable, it can be concluded that there is no autocorrelation between the study variables and have fulfilled classical assumption test.

**Table 9.** Autocorrelation Test (ROE)

Model Summary<sup>b</sup>

Model R	R Square	Durbin-Watson
1	,388 <sup>a</sup> ,150	1,829

a. Predictors: (Constant), ESOP, LEV, FS

b. Dependent Variable: ROE

Based on Table 9 above, using Return On Equity (ROE) as the dependent variable, it can be concluded that there is no autocorrelation between the study variables and have fulfilled classical assumption test.

**Heteroskedastisitas test**

According to Hutomo (2015) heteroskedastisitas test is a state where the variance and the confounding errors are not constant for all the independent variables. Heteroskedastisitas test used in the study is the Glejser test. Heteroskedastisitas test results influence financial leverage, firm size and Employee Stock Ownership Program (ESOP) of the firm manufacturing company performance period 2013 -2015:

**Table 10.** Heteroskedastisitas Test (ROA)

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	,032	,019		1,631	,105		
1LEV	-,007	,004	-,159	-1,973	,050	,963	1,038
FS	,001	,003	,029	,346	,730	,871	1,148

ESOP	,001	,007	,007	,078	,938,855	1,170
------	------	------	------	------	----------	-------

a. Dependent Variable: ABRES

**Table 11.** Heteroskedastisitas Test (ROE)

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	,084	,031		2,706	,008		
1 LEV	,005	,006	,067	,828	,409	,963	1,038
FS	-,006	,005	-,100	-1,164	,246	,871	1,148
ESOP	,005	,010	,043	,496	,621	,855	1,170

a. Dependent Variable: ABRES

Based on the output of the heteroskedastisitas test results by using glejser test which can be seen from Table 10 and 11, it can be concluded that the data are free from heteroskedastisitas because the significant value generated financial leverage amounted to 0.050 on ROA and 0.409 on ROE, firm size for 0730 at the ROA and 0.246 on ROE, and employee stock ownership program for 0938 on ROA and ROE 0.621 in. From these results, there is not any one variable that is below 0.05, then it can be concluded that there is no heteroskedastisitas symptoms.

**Hypothesis Testing**

Researchers used three independent variables in the study, it must be done in a multiple regression analysis to test the hypothesis. Regression model was made in order to predict the changes in the value of the variable performance of the company by proxy Return On Asset (ROA) and Return On Equity (ROE), which is influenced by changes in the value of the variable leverage, firm size, and Employee Stock Ownership Program (ESOP) with a significance level of 0.05 or 5%.

Regression models for Return On Asset (ROA) used in this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Dimana:

- Y = Return On Assets t period
- $\beta_0$  = Constanta
- $\beta_1, \beta_2, \beta_3$  = Regression coefficient of each independent variable
- $X_1$  = financial leverage for company i (LEV)
- $X_2$  = firm size for company i (FS)
- $X_3$  = Employee Stock Ownership Program (ESOP) for company i
- $\epsilon$  = error term

**Table 12.** Multiple Regression Analysis – ROA

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	-,047	,032		-1,496	,137		
1 LEV	-,045	,006	-,492	-7,338	,000	,963	1,038

FS	,025	,005	,357	5,056	,000,871	1,148
ESOP	-,011	,011	-,073	-1,031	,304,855	1,170

a. Dependent Variable: ROA

According to the table above, the obtained results of regression analysis testing with the form of regression model on the dependent variable ROA as follows:

$$ROA = -0.047 - 0,045LEV + 0,025FS - 0,011ESOP$$

The regression equation above shows that the constant value of -0.047. This means that if the value of the variable LEV, FS, and ESOP considered zero or constant, then the variable ROA has a value of -0.047. Variable LEV (leverage) has a coefficient of -0.044 which shows that the FS and the ESOP when variables held constant, then any increase in LEV (leverage) by 1 unit will lower ROA amounted to -0.045. The coefficient is negative means increased LEV will cause a decrease in ROA.

Variable FS (Firm Size) has a coefficient of 0.025 which shows that when variables LEV and ESOP considered constant, then any increase in SD (Diversification Strategy) by 1 unit will increase ROA by 0.025. The coefficient is positive means increased FS will lead to an increase in ROA.

Variable ESOP (Employee Stock Ownership Program) has a coefficient value of - 0,015yang shows that when variables FS and ESOP considered constant, then any increase in ESOP by 1 unit will lower ROA amounted to -0.011. The coefficient is negative means increased ESOP will cause a decrease in ROA.

Regression models for Return On Equity (ROE) used in this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Dimana:

- Y = Return On Equity t period
- $\beta_0$  = Constanta
- $\beta_1, \beta_2, \beta_3$  = Regression coefficient of each independent variable
- $X_1$  = financial leverage for company i (LEV)
- $X_2$  = firm size for company i (FS)
- $X_3$  = Employee Stock Ownership Program (ESOP) for company i
- $\epsilon$  = error term

**Tabel 13.** Multiple Regression Analysis – ROE

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficientst	Sig.	Collinearity Statistics	
	B	Std. Error			Beta	Tolerance
(Constant)	-,095	,050		-1,886	,061	
1	LEV	-,023	,010	-,179	-2,374	,019,963
	FS	,037	,008	,375	4,730	,000,871
	ESOP	-,009	,017	-,041	-,507	,613,855

a. Dependent Variable: ROE

According to the table above, the obtained results of regression analysis testing with the form of regression model on the dependent variable ROE as follows:

$$ROE = -0.095 - 0,023LEV + 0,037FS - 0,009ESOP$$

The regression equation above shows that the constant value of -0.095. This means that if the value of the variable LEV, FS, and ESOP considered zero or constant, then the ROE have a value of -0.095. Variable LEV (leverage) has a coefficient of -0.023 which shows that the FS and the ESOP when variables held constant, then any increase in LEV (leverage) by 1 unit will lower ROE of -0.023. The coefficient is negative means increased LEV will cause a decrease in ROE.

Variable FS (Firm Size) has a coefficient of 0.037 which shows that when variables LEV and ESOP considered constant, then any increase in firm size of one unit will increase the ROA amounted to 0,037. The coefficient is negative means that the increase in SD will cause an increase in ROE.

Variable ESOP (Employee Stock Ownership Program) has a coefficient of -0.0009 indicating that FS and LEV when variables held constant, then any increase in ESOP by 1 unit will lower ROE of -0.0009. The coefficient is negative means increased ESOP will cause a decrease in ROE.

### Test F (Simultaneous)

Test F can be regarded as ANOVA. The statistical test F basically indicates whether all the independent variables or free inclusion in the model jointly have influence on the dependent variable / dependent (Ghozali, 2011: 98). Data can be passed the test F, if the significance value <0.05, which means there is significant influence between the variables. Meanwhile, if the significance value > 0.05 means that there is no significant influence between the variables. Tables 14 and 15 of the F test results are presented as follows:

**Tabel 14.** Test F – ROA

ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	,134	3	,045	25,161	,000 <sup>b</sup>
Residual	,276	155	,002		
Total	,410	158			

a. Dependent Variable: ROA

b. Predictors: (Constant), ESOP, LEV, FS

F test is performed to detect the influence of the independent variables and the dependent variable the researchers used. ROA and the dependent variable is the independent variable LEV, FS and ESOP. In accordance with the results of table 14 it can be seen that the significant value of 0.000 that is smaller than  $\alpha = 0.05$ , it can be concluded that simultaneously, there is a significant effect. This shows that there is significant influence between leverage (by proxy of debt to equity ratio), Firm Size and Employee Stock Ownership Program (ESOP) as independent variables on ROA as the dependent variable together with a confidence level of 95%. So we can conclude that the variable LEV, FS and ESOP significantly affect ROA.

**Tabel 15.** Hasil Uji F – Persamaan ROE

ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	,123	3	,041	9,132	,000 <sup>b</sup>
Residual	,695	155	,004		
Total	,817	158			

- a. Dependent Variable: ROE  
 b. Predictors: (Constant), ESOP, LEV, FS

F test is performed to detect the influence of the independent variables and the dependent variable the researchers used. Independent variables and the dependent variable of ROE LEV, FS and ESOP. In accordance with the results of table 4:14 to note that the significant value of 0.000 that is smaller than  $\alpha = 0.05$ , it can be concluded that there is significant influence between leverage (by proxy of debt to equity ratio), Firm Size and Employee Stock Ownership Program (ESOP ) as the independent variable on the dependent variable ROE together with a confidence level of 95%. So we can conclude that the variable LEV, FS and ESOP significantly affect ROE.

**t test**

The statistical test t basically shows how far the influence of the explanatory variables / independent individually in explaining the dependent variable (Ghozali, 2011: 98). According to Manurung (2006b: 171), the destination t test to determine whether the regression coefficient is significant or not. In this study, the test was conducted to determine how much influence the leverage (by proxy of debt to equity ratio), firm size and Employee Stock Ownership Program (ESOP) in explaining the variation of the dependent variable ROA and ROE by using the degree of error ( $\alpha$ ) 5% and a confidence level of 95%. The test results of independent variables on the dependent variable are presented in tables 16 and 17

**Table 16.** T test – ROA

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficientst	t	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	-,047	,032		-1,496	,137		
1 LEV	-,045	,006	-,492	-7,338	,000,963		1,038
FS	,025	,005	,357	5,056	,000,871		1,148
ESOP	-,011	,011	-,073	-1,031	,304,855		1,170

- a. Dependent Variable: ROA

Variable LEV (Leverage) has a significance value of 0.000, which means H1a accepted because the significant value of the variable LEV has a value less than 0.05. Thus it can be concluded that the variable LEV has significant effect on ROA firms as sample.

As for the variable FS (Firm Size) has a significance value of 0.000, which means H2a accepted because the significant value of the variable FS has a value less than 0.05. It can be concluded that FS variable has significant effect on ROA firms as sample.

Furthermore, analysis of the ESOP variable ROA has a significance value of 0.304, which means H3a rejected because of the significant value of the ESOP variable has a value greater than 0.05. It can be concluded that the ESOP variable has no significant effect on ROA firms as sample.

**Table 17.** t test – ROE

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance

(Constant)	-,095	,050		-1,886,061		
1 LEV	-,023	,010	-,179	-2,374,019	,963	1,038
FS	,037	,008	,375	4,730,000	,871	1,148
ESOP	-,009	,017	-,041	-,507,613	,855	1,170

a. Dependent Variable: ROE

Variable LEV (Leverage) has a significance value of 0.019, which means H1b accepted because the significant value of the variable LEV has a value less than 0.05. Thus it can be concluded that the variable LEV has significant effect on ROE firms as sample.

As for the variable FS (Firm Size) has a significance value of 0.000, which means H2b accepted because the significant value of the variable FS has a value less than 0.05. It can be concluded that FS variable has significant effect on ROE firms as sample.

Furthermore, analysis of the ESOP variable ROE has a significance value of 0.613, which means H3b rejected because of the significant value of the ESOP variable has a value greater than 0.05. It can be concluded that the ESOP variable has no significant effect on ROE firms as sample.

**Coefficient of Determination Regression Test**

According to Endang NP, Topowijono, and Vidyanata (2016), the coefficient of determination (R2) is useful to know how big the ability of the independent variables in explaining the dependent variable. If the coefficient of determination closer to the figure, the better the effect of inter-dependent and independent variables in the study. Conversely, if the coefficient of determination is getting close to zero, the smaller the influence of independent variables on the dependent variable. Adjusted R2 test results are presented in tables 18 and 19 as follows

**Table 18.** Coefficient of Determination Regression – ROA

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,572 <sup>a</sup>	,327	,314	,0422017

a. Predictors: (Constant), ESOP, LEV, FS

b. Dependent Variable: ROA

Table 18 shows the figures adjusted R-square (R2) of 0.327. Figures R2 .150 this means 32.7% of the variation ROA can be explained by the three independent variables LEV, FS and the ESOP, the balance of 67.3% is explained by other variables.

**Table 19.** Coefficient of Determination Regression – ROE

Model Summary<sup>b</sup>

Model	R	Adjusted R Square	Std. Error of the Estimate
1	,138 <sup>a</sup>	,134	,0669469

a. Predictors: (Constant), ESOP, LEV, FS

b. Dependent Variable: ROE

Table 19 shows the figures adjusted R-square (R<sup>2</sup>) of 0.149. Figures 0.149 R<sup>2</sup> mean of 14.9% of the variation ROE can be explained by the three independent variables LEV, FS and the ESOP, the rest of 85.1% is explained by other variables.

## CONCLUSION

The purpose of this study is to demonstrate empirically the effect of financial leverage, firm size and employee stock ownership program (ESOP) to the firm performance of companies listed on the Indonesian Stock Exchange (BEI) in the period from 2013 to 2015 either simultaneously or partial. The sample used in this study is as much as 53 or as many as 159 manufacturing companies sampled data and more data is processed with the help of SPSS Software V.21

Based on test results and discussion as has been presented in previous section, could be concluded as follows:

1. Variable LEV (Leverage) has a significance value of 0.000, which means H1a accepted because the significant value of the variable LEV has a value less than 0.05. Thus it can be concluded that the variable LEV has significant effect on ROA firms as sample.
2. Variable LEV (Leverage) has a significance value of 0.019, which means H1b accepted because the significant value of the variable LEV has a value less than 0.05. Thus it can be concluded that the variable LEV has significant effect on ROE firms as sample.
3. Variable FS (Firm Size) has a significance value of 0.000, which means H2a accepted because the significant value of the variable FS has a value less than 0.05. It can be concluded that FS variable has significant effect on ROA firms as sample.
4. As for the variable FS (Firm Size) has a significance value of 0.000, which means H2b accepted because the significant value of the variable FS has a value less than 0.05. It can be concluded that FS variable has significant effect on ROE firms as sample.
5. Furthermore, the analysis of the ESOP variable ROA has a significance value of 0.304, which means H3a rejected because of the significant value of the ESOP variable has a value greater than 0.05. It can be concluded that the ESOP variable has no significant effect on ROA firms as sample.
6. Furthermore, the analysis of the ESOP variable ROE has a significance value of 0.613, which means H3b rejected because of the significant value of the ESOP variable has a value greater than 0.05. It can be concluded that the ESOP variable has no significant effect on ROE firms as sample.

## REFERENCES

- Anthony, Robert N., dan Vijay Govindarajan. 2007. *Management Control System*. New York :McGraw-Hill.
- Ariefianto, Moch. Doddy. (2012). *Ekonometrika: Esensi dan Aplikasi dengan menggunakan Eviews*. Jakarta : Erlangga.
- Aurelia, T.S., (2017). Reflections on the possibility of using statistical analysis science and innovation in the republic of moldova. *International Business and Accounting Research Journal*, 1(1), pp.9-17.
- Chanda, Ashok dan Shen, Jie. (2009) *HRM Strategic Integration and Organizational Performance*
- Cipta, Wayan, I Ketut Kirya dan Ni Kadek Venimas Citra Dewi. (2015). Pengaruh *LDR, LAR, DER* dan *CR* Terhadap *ROA*. *e-Journal Bisma Universitas Pendidikan Ganesha Jurusan Manajemen, Volume 3*.
- Dessler, G. 2007. *Manajemen Sumber Daya Manusia* jilid 2 Edisi 10, Jakarta: Indeks.
- Dewi, Yeshinta Trivena dan Saarcce Elsy Hatane. (2015). Peranan *Employee Stock Ownership Plan* dalam Pengaruh *Value Added Intellectual Capital* terhadap *Financial Performance*. *Business Accounting Review, Vol. 3, No. 1*. Hal 478-488.

- Endang NP, MG Wi, Deandra Vidyanata dan Topowijono. (2015). Pengaruh Diversifikasi dan *Financial Leverage* Terhadap Kinerja Keuangan Perusahaan (Studi pada Perusahaan Manufaktur Sektor *Food and Beverages* yang Terdaftar di BEI periode 2012-2014. Universitas Brawijaya: Malang.
- Fudji, Sri Mar'ati dan Ashari, Purnomo, 2011, Pengaruh Profitabilitas Dan *Firm Size* Terhadap *Financial Structure* Perusahaan Yang Terdaftar Dalam Indeks LQ 45 Di Bursa Efek Indonesia, *Jurnal Ekonomi* Vol.4 No.7 Juli, Hlm. 70-95.
- Ghozali, Imam. 2011. Aplikasi Analisis Multivariate Dengan *Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam. 2016. Aplikasi Analisis Multivariate Dengan *Program SPSS* 23. Semarang: Badan Penerbit Universitas Diponegoro
- Hartono, Agus. (2014). *Intermediate Accounting IFRS Edition, 2nd Edition*. United States of America: Wiley.
- Hutomo, Andikha Pambudi. (2015). Pengaruh faktor likuiditas, pertumbuhan perusahaan dan struktur *asset* yang mempengaruhi kinerja keuangan dalam industri yang *go public* di BEI periode 2009-2012. *ePrints DiNus Fakultas Ekonomi dan Bisnis*.
- Isbanah, Yuyun (2015). Pengaruh ESOP, *Leverage* dan Ukuran Perusahaan terhadap Kinerja Keuangan Perusahaan di Bursa Efek Indonesia. Volume 15, No. 1, Januari – Juni. Halaman 28-41
- Kasmir. (2014). Analisis Laporan Keuangan (1st ed.). Jakarta: Rajawali Pers.
- Kiow, T.S., Salleh, M.F.M. and Kassim, A.A.B.M., (2017). The determinants of individual taxpayers' tax compliance behaviour in peninsular malaysia. *International Business and Accounting Research Journal*, 1(1).
- Lawrence, Anne T. dan Weber, James (2008) *Business and Society: Stakeholders, Ethics, Public Policy 12<sup>th</sup> Edition*. Boston: McGraw-Hill.
- Manurung, Adler Haymans. (2006). Metode Penelitian: Keuangan, Investasi dan Akuntansi Empiris. Jakarta: PT Adler Manurung Press.
- Mar'ati, S.F. dan Ashari Purnomo (2011). Pengaruh Profitabilitas dan *Firm Size* terhadap *Financial Structure* Perusahaan yang Terdaftar dalam Indeks LQ 45 di Bursa Efek Indonesia (BEI).
- Natalia, P. and Aurelia, T.S., (2017). The Main Directions of The Scientific Reform in Republic of Moldova. *International Business and Accounting Research Journal*, 1(1), pp.44-54.
- Ningrum, Kiki Eka Meida (2014). Efek *Intellectual Capital* dan *Leverage* Keuangan terhadap Profitabilitas Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia. Artikel Ilmiah Mahasiswa 2014. Universitas Jember.
- Niresih, J. Aloy dan Velnampy, T. (2014). *Firm Size and Profitability: A Study of Listed Manufacturing Firms in Sri Lanka*. *International Journal of Business and Management*; Vol. 9, No. 4; 2014. Published by Canadian Center of Science and Education
- Primadanti, Dina dan Eko, Umanto (2013). Pengaruh *Size*, *Leverage* dan *Growth* terhadap Kinerja Perusahaan pada Sektor Keuangan yang Terdaftar di Bursa Efek Indonesia Periode 2008-2011.
- Rachmawati, Ika. (2013). Pengaruh Penerapan *Employee Stock Ownership Program (ESOP)* Terhadap Peningkatan Kinerja Perusahaan Ditinjau dari Perspektif Ekonomi Islam (Studi Kasus pada Perusahaan yang Telah Menerapkan *ESOP* dan Tidak Menerapkan *ESOP* di Indonesia). Universitas Gadjah Mada: Yogyakarta.
- Salim, Jihan. (2015). Pengaruh *Leverage (DAR, DER, dan TIER)* Terhadap *ROE* Perusahaan Properti dan *Real Estate* yang Terdaftar di Bursa Efek Indonesia Tahun 2010 – 2014. Yogyakarta: UPP STIM YKPN.
- Söylemez, A.O., (2017). Volatility Spillovers from The International Capital Inflows to Economic Growth in Turkey. *International Business and Accounting Research Journal*, 1(1), pp.18-25.
- Weygandt, Jerry J., Kimmel, Paul D., Kieso, Donald E. (2013) *Financial Accounting IFRS Edition 2e*. United States of America: Wiley
- Yüksel, S., (2017). The impacts of research and development expenses on export and economic growth. *International Business and Accounting Research Journal*, 1(1), pp.1-8.