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The Effect of External Financing Needs and Suistainable Growth on Firm Value in Manufacturing Companies Registered on Indonesia Stock Exchange

*Abstract. **Introduction**. Many companies use external financing needs to meet business operations needs or for company investment capital. External financing needs are preferred in form of debt rather than issuance of new shares for two reasons; first is the consideration of emissions costs. Besides debt used to finance all company activities, the problem of growth is also important because it involves the survival of a company. Growth describes the company's ability to generate profits. Empirical studies of the relationship between the external financing needed (EFN), company growth, and firm value until now have not reached a comprehensive conclusion. It is indicated by various studies in scope that providing various results. In this study, the research populations were manufacturing companies registered in the Indonesia Stock Exchange (IDX) for the period 2012-2016. 124 companies were studied. The analysis used multiple regression.*

***Purpose**. The purpose of this study was to conduct an analysis and obtain empirical evidence of the effect of External Financing Needs, Sustainable Growth, and Firm Value.*

***Results**. The results showed that External Financing Needs in manufacturing companies had a not-significant effect on Firm Values, meaning that high or low External Finance of company needs did not affect the firm value of a company, and the Sustainable Growth Rate in manufacturing companies had a significant effect on Firm Valueit means that high or low a sustainable growth of a company will have an affect on the firm value of a company.*

***Conclusion**. External Financing Needs (EFN) in manufacturing companies had no significant effect on PER, meaning that the high and low EFN of a company does not affect the firm value of a company. Sustainable Growth Rate (SGR) in manufacturing companies had a significant effect on PER, meaning that the high and low SGR of a company will affect the firm value of company.*

***Keywords** : External Fiancing Needs, Suistanable Growth, Firm Value.*

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Вплив потреб у зовнішньому фінансуванні та стійкого зростання на вартість підприємств (на прикладі виробничих компаній, зареєстрованих на Індонезійській фондовій біржі)

Анотація. *Більшість компаній використовують зовнішнє фінансування для задоволення потреб операційної діяльності або для інвестиційного капіталу компанії. Зовнішні потреби у фінансуванні задовольняють переважно у формі боргу, а не випуску нових акцій з двох причин. По-перше, це врахування витрат на викиди. Окрім боргу, який використовується для фінансування всіх видів діяльності компанії, також важливою є проблема зростання, оскільки вона передбачає тривалість існування компанії. Зростання відображає здатність компанії генерувати прибуток. Емпіричні дослідження взаємозв'язку між необхідним обсягом зовнішнього фінансуванням (EFN), зростанням компанії та вартістю підприємства на сьогодні не отримали вичерпного узагальнення. На це вказують різні дослідження, за результатами яких отримано різні результати. У цьому дослідженні групи вибірки були сформовані на основі підприємств-виробників, зареєстрованих на Індонезійській фондовій біржі (IDX) за період 2012-2016 років. Кількість компаній, що вивчалися, становила 124. Для аналізу використовувалась множинна регресія.*

Метою дослідження було проведення аналізу та отримання емпіричних доказів впливу потреб у зовнішньому фінансуванні, стійкого зростання на вартість підприємства.

Результати свідчать, що потреби у зовнішньому фінансуванні виробничих компаній мали вплив, проте суттєво не вплинули на вартість підприємства. А це означає, що високий або низький рівень зовнішнього фінансування потреб компанії не впливає на її вартість. При цьому темпи стійкого зростання мали суттєвий вплив на вартість підприємства.

Отже, темп стійкого зростання (SGR) у виробничих компаніях суттєво вплинув на вартість підприємства, тобто високий і низький SGR компанії впливатиме на її вартість.
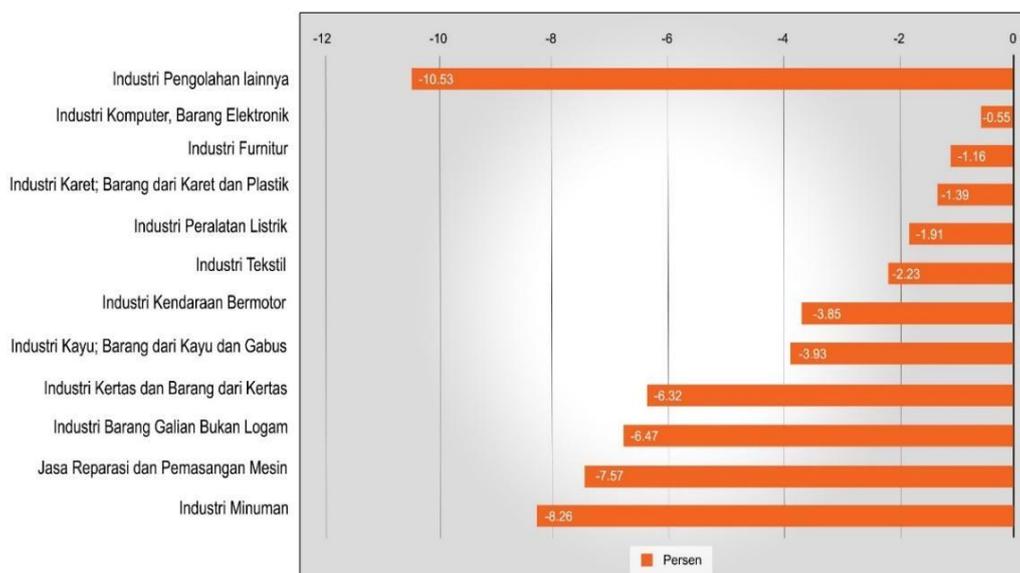
Ключові слова: потреби у зовнішньому фінансуванні; стійке зростання; вартість підприємства.

Statement of the problem. Many companies use external funding needs to meet business operations needs or for investment capital of companies. External funding needs are preferred in form of debt rather than the issuance of new shares for two reasons, namely the consideration of emissions cost. Emission costs are cheaper than the cost of issuing new shares (Husnan 2010). It makes most companies in Indonesia have high debts classified. By having debt, the company will be faced with risks in the future. Every company has a different policy in managing its external funding sources. According to Martono and Harjito (2010), there are companies with large amounts of debt and suffer losses because they cannot pay off the debt. It is because company's debt exceeds the company's financial capacity so that the company suffers from a condition called financial distress. In fact, many large companies are still successful even though they have large debts in their financial statements. Such companies have excellent financial performance and debt management. A company is called healthy and liquid when the assets owned by the company are far higher than the debt. However, It does not mean the existence of debt makes a variety of large companies called as a failure or going bankrupt. In utilizing debt as a source of funds, it needs to be considered whether after getting a loan or debt, the company is able to create higher and more efficient profits.

In addition to debt used to finance all company activities, the problem of growth is also important because it involves the survival of a company. Growth describes the company's ability to generate profits. According to Sukirno (2012), economic growth will increase due to the increasing of production factors and investment.

The manufacturing industry sector is one of the important sectors in national economic development. The manufacturing industry sector is one of the pillars of the national economy because this sector provides a significant contribution to Indonesia's economic growth. Another role of the manufacturing industry is the absorption of large quantities of labor in which will reduce the unemployment rate.

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Source: BPS processed by Researchers

Figure 1 explains the production of large and medium manufacturing industries in the second quarter of 2017 grew 4 percent compared to the second quarter of the previous year. Of the 23 large and medium manufacturing sectors, 12 of them experienced a decline. The production growth of the large and medium manufacturing industries in the second quarter of this year slowed compared to the second quarter of 2016. It was 5.54 percent. The production of the beverage industry declined the most in the second quarter of this year, 8.26 percent compared to the same quarter of the previous year. Then followed by the machinery repair and installation service sector, which weakened 7.57 percent, the non-metal excavation industry declined to 6.47 percent, and the motor vehicle industry also declined to 3.85 percent.

Table 1 **Manufacturing Industry Production Growth Quarter IV-2017**

Industry	Percentage
Food industry	15,28%
Other Shipping Industry	14,44%
Chemicals Industry and Chemical goods	−12,02%
Raw Metal Industry	36,19%
Electrical Equipment Industry	35,81%
Tobacco Processing Industry	−55,51%
Large and medium Industry	Small Micro Industry
5,15	4,59

Source: BPS processed by the researcher

Based on table 1, the growth of large and medium-sized industrial manufacturing companies in the fourth quarter of 2017 had a higher growth of 5.15% compared to the growth of small micro-industry manufacturing companies at 4.59%. The production of raw metal manufacturing companies and the electrical equipment industry was in the highest production position, which was 36.19% and the lowest production was tobacco processing industry - 55.51%.

Previous Study

Research on external financing needed (EFN) and company growth that affect the firm value of the company has been carried out in Indonesia. Based on the research by Artem

Gudov (2016) proposes an analysis of the initial decisions of Russian entrepreneurs and business owners' decisions about the chosen financial source structure, which consists of a regression statistical and logistical approach to this study. The findings show that in Russia the structure of financial resources for beginning entrepreneurs is dominated by "love funding" (especially

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personal and family savings), meanwhile, the percentage of financing for business people is low compared to countries driven by innovation. In addition, there are only extra-economic factors which effect informal investors' decision-making regarding funding: personal relationships with borrowers, optimistic views on macroeconomic perspectives and high business status. According to Nadillah (2017) the company growth affecting companies negatively and not significant to the firm value. Based on the results of the study, the company's growth has no influence on the firm value because the company growth directly does not really affect investors who invest in a company.

Framework of the Study

The research framework connectedto the independent variable (X) with the dependent variable (Y). Based on the background, problem formulation, and research objectives, the following is the framework of the study:
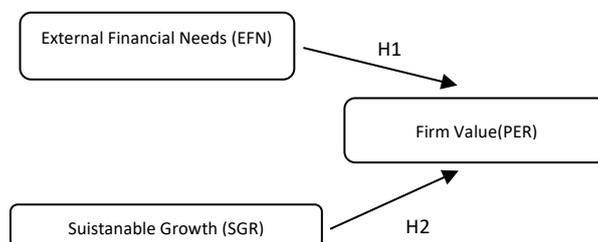

Figure 2

Based on the framework of the study above, the hypotheses can be formulated as follow:
H1: External Financial Needs is significant to Firm Value (PER)
H2: Suistanabl Growth (SGR) is significant to Firm Value (PER)

The Test Results. Criteria were set for companies used as research samples, namely:

1. Registered in the category of manufacturing companies.

2. A a public company whose shares were registered on the Indonesia Stock Exchange.

3. The sample companies had data about the complete financial statement for the periode of 2012-2016.

The following table shows the sample selection process:

Table 2. **Sample Selection Process**

No	Criteria	Total
1	Indonesia Companies on the Indonesia Stock Exchange	147
2	Unregistered Companies respectively in the IDX during the period of 2012-2016	(23)
	Company`for Research Samples	124

Source: Processed by researcher, 2019

Based on the criteria above, there were 124 manufacturing companies registered in the Indonesia Stock Exchange (IDX) that met the criteria and could be used as samples

This study used the multiple linear regression method, formulated as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon$$

A descriptive statistical analysis aims to describe the characteristics of the samples in the study to provide a description of each variable that will be used. In this study the variables used were the dependent variable External Financing Needs (EFN) and the Sustainanble Growth Rate (SGR) as well as the independent variable that wasfirm value was proxied as PER.

The following are the results of descriptive statistical analysis of the variables that will be used in this study as shown in table 3.

Table 3. Descriptive statistics

/	N	Minimum	Maximum	Mean	Std. Deviation
PER	218	-13.13	34.39	12.23	9.22
LG10_EFN	218	4.99	7.29	6.25	0.533

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SGR	218	0.17	4.67	2.50	0.966
Valid N (listwise)	218				

Source: 2019 Secondary Data, processed with SPSS 24.0.

Based on table 3, it can be seen that the minimum price earning ratio (PER) was -13.13 and the maximum value was 34.39. The results show that the PER of the manufacturing companies that are the samples of this study range from -13.13 to 34.39 with an average PER value of 12.23 at the standard deviation level of 9.26. The standard deviation value> mean (9.22> 1). It means that the results show poor resultsbecause the standard deviation was higher than the average value.

The minimum value of Log10_EFN is 4.99 and the maximum value is 7.29. The results show that the Log10_EFN manufacturing companies that are the samples of this study range from 4.99 to 7.29 with meanLog10_EFN of 6.25 at the standard deviation of .533 indicating that the standard deviation value was lower than the average value it means that Log10_EFN was well spread.

The minimum SGR value was .17 and the maximum value was 4.67. The results indicated that the large SGR manufacturing companies that are the sample of this study range from .17 to 4.67 with an average SGR value of 2.50 at the standard deviation level of .99629 which indicates that the value standard deviation was smaller than the average value which means there was no deviation.

After conducting the Kolmogorov Smirnov test, the data were not normally distributed. Then an outlier discharge process was carried out. Here are the Kolmogorov Smirnov test results processed using the SPSS 24.0 program:

Table 4. **Normality test. Test Kolmogorov Smirnov**

	PER	EFN	SGR
N	218	218	218
Test Statistic	0.056	0.048	0.045
Asymp. Sig. (2-tailed)	0.089	0.200	0.200

Secondary Data 2019, processed with SPSS 24.0 program

Based on table 4. it can be seen that the asymp value. sig. of the PER variable was 0.89, EFN variable had an asymp value. sig. of 0.200, and the SGR variable had an asymp value. sig. of 0.200. So, it can be seen that the three variables above had a significance value more than (<) 0.05, meaning that the regression model was normally distributed.

Table 5. **Multicollinearity Test**

Model	Unstandardized Coefficients		Standardized Coefficients			Colinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	2.075	7.749		0.268	0.600		
EFN	1.804	1.354	0.104	1.333	0.322	0.785	1.274
SGR	-0.447	0.724	-0.048	-0.617	0.538	0.755	1.325

Source: Secondary Data2019, processed with SPSS 24.0 program

Based on table 5, it can be seen that the External Financing Needs (EFN) variable had a VIF value of 1,274 <10.00 and a Tolerance value of 0.785> 0.100. The SGR variable had a VIF value of 1,274 <10.00 and a Tolerance value of 0.785> 0.100. Thus it can be concluded that between one independent variable and another independent variable there was no multicollinearity. The regression model has fulfilled the multicollinearity test. After fulfilling the multicollinearity test, the regression model can be continued with the autocorrelation test.

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Table 6. **Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.025	.001	-.009	.28030	1.999

Source: Secondary Data2019, processed with SPSS 24.0 program

As shown in the estimation results above, the Durbin-Watson value was 1,614. To find out whether the regression model is free from autocorrelation or not, it is necessary to know the upper limit value (dU) and the lower limit value (dL) of Durbin-Watson. The values of dU and dL can be seen in the Durbin-Watson table with a significance value = 5%, k = 2, and N = 169. The results are as follows:

Table 7. **Durbin-Watson Test**

Durbin-Watson Stat	1.614
DW Table at α = 5% k = 2 N = 169 dL Du	 1.725 1.772

Source: Durbin-Watson Table

From table 7. it can be concluded that the regression model has an autocorrelation problem, because the DW statistic value was lower than dU. The value of dU at the significance of 5%, k = 2, N = 169 was obtained at 1.722, while the DW value was 1.614. To make the regression model free from the autocorrelation test, it is necessary to transform the data using the Orcutt Cochrane method. The Orcutt Cochrane Method is one method that can be used to solve the problem of estimating regression coefficients in the Generalized Least Square equation that cannot be estimated by OLS (Tinungki, 2016). The Orcutt Cochrane transformation was processed by looking for the Rho value (correlation coefficient). The first step in finding Rho Value is to determine the residuals from the original linear regression data. After that, making a lag transformation on the residual value. The second stage is to regression between residual lags as independent variables with residual values as the dependent variable. After that the Rho value will be found and can be continued by performing the Orcutt Cochrane transformation.

Table 8. **Autocorrelation Test, F Test, R² Determination Coefficient Test, F Test, T Test**

Independent Variable	Depended Variable	B	SE	T	Distribution Normality Test ≈> 0.05	Sig	R2	SEE	Anova F-Test Sig	Durbin Watson
External Financing Needs	Price Earnings Ratio	6.34	0.000	0.994	0.062	0.34	0.024	9.21	0.034	0.018
Sustainable Growth Rate		0.12	0.136	2.001	0.200					
N Sample : 169 Observation										

Source: Secondary Data 2019, processed with SPSS 24.0 program

Based on table 8 the results of the autocorrelation test after the Cochane Orcutt transformation were obtained by the Durbin-Watson value of 2.060 which indicates that the Durbin-Watson statistical value is between dU and 4-dU (dU <DW <4-dU). The dU value in the Durbin-Watson table was 1,772, while the 4-dU value was 2,060 (4 - 1,772). The Durbin-Watson value that was between the dU and 4-dU values indicates that the regression model has met the autocorrelation test.

F Statistics Test (Simultaneous Test)

Based on table 8, it can be seen that the probability value obtained was 0.034. This shows that the probability value was smaller than 0.05, so it can be concluded that EFN and SGR variables have a significant effect simultaneously on firm value.

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Coefficient of Determination (R2)

The coefficient of determination (R2) is a measure of goodness of fit that can be used to measure how much the influence of the independent variables contributeson the dependent variable. The coefficient of determination (R2) ranges from 0 to 1. Based on table 8, the R2 value is 0.024 or 2.4%. This means that the EFN and SGR variables were only able to influence the company value by 2.4%. While the rest or 0.976 or 97.6% were influenced by variables other than those in this study. The probability value obtained was 0.034. The probability value was smaller than 0.05, so it can be concluded that EFN and SGR variables have a simultaneously significant effect on firm value.

Test Statistic t (Partial Test)

Based on the data in Table 9, the regression results show that the External Financing Needs (EFN) variable had a probability value of 0.010. With a significance level (α = 5% or 0.05), the value obtained was smaller than the significance value (p> 0.05). It can be concluded that H0 was accepted, which meant that changes in EFN had a significant effect on the firm value in manufacturing companies registered on the Indonesia Stock Exchange (IDX) for the period of 2012-2016.

The determination of direction test was conducted to determine the relationship between the independent variable and the dependent variable, whether it has a positive or negative relationship by looking at the coefficient value. In table 4.4 the EFN regression coefficient value was -0.994, indicatinga negative relationship between EFN and PER.

The Sustainable Growth Rate (SGR) Variable (X2) Test

Based on data Table 4.4, the results of the regression found that the SGR variable had a probability value of 0.358. The value obtained was greater than the significance value (p <0.05), so that H0 was rejected. This means that the change in SGR did not affect the firm value of manufacturing companies registered on the Indonesia Stock Exchange (IDX) for the period of 2012-2016.

Finding and Discussion

The Effect of External Financing Needs (EFN) on Firm Value (PER)

The t-test between the External Financing Needs (EFN) variable and PER had a probability value of 0.322.Because the probability value was 0.322> 0.05, H0 was accepted. It can be concluded that the External Financing Needs (EFN) variable did not affect PER. EFN had no effect on PER, indicating that the company did not need external funding sources to finance the company's operations. External sources of funds are obtained through short-term debt (notes payable), long-term debt, and sale of shares, both preferred shares and ordinary shares (Bringham and Gapenski, 1996: 539). Thus manufacturing companies have sufficient internal funds to finance the company's operations. Gordon Donaldson (1961 & 1969) in Sitorus's research in accordance with the Pecking Order Theory which states that companies prefer to use internal funding sources in their funding decisions (retained earnings).

Internal company funds are financing originating from within the company, namely: (1) Decreasing current assets other than cash, (2) Decreasing fixed assets and (3) Retained earnings. According to Dickerson et al. (1995: 242), the higher the profit margin, the lower the external funding needs. The higher profit margin indicates that the company has increased income, so the company's net profit will increase and the company will use internal funds more.

The value of the External Financing Needs (EFN) coefficient was -0.994, which indicated that high External Financing Needs (EFN) had a negative influence on PER. This illustrates that each increase of 1 unit in EFN will make the value of the company decrease by 0.994 units. These results indicate that a high EFN can make a company's value decline. According to Brigham (1995: 622) external funding needs obtained by a company from outside of the company through debt or by selling ordinary shares or preferred shares (stock shares). Companies that use high external funds in the form of debt will increase the risk of bankruptcy, so company managers need to be careful of debt risk. The greater the debt that is owned by the company, the higher the interest expense that must be paid by the company, which can have an impact on the decline in company profits. The main goal of each company is to maximize shareholder wealth or company value (Salvatore, 2011). The use of high EFN in the form of debt can reduce the value of the company, because it will have an impact on corporate profits. If the net income obtained by the company is low, it will result in a low dividend that will be distributed to the holder, thereby reducing investor interest in investing in the company (Smith and Skousen, 2000: 132). The decline in profits is continuously believed by investors as a signal that the company will experience a difficult period in the future, so this will result in low firm value for the investors. It is in accordance with research conducted by Artem Gudov (2016) which states that EFN does not affect PER.

The Effect of Sustainable Growth Rate (SGR) on Firm Value (PER)

The t-test between the Sustainble Growth Rate (SGR) variable and PER had a probability value of 0.047. Because the probability value was 0.047 <0.05, H0 was rejected. It can be concluded that the Sustainble Growth Rate (SGR) variable had a significant effect on PER. The influence of SGR on PER shows that increasing company growth will affect the firm value of the company. SGR is the maximum level where company sales can rise without exhausting the company's financial resources (Saputro and Purwanto, 2013; Higgins, 1992). When a company has enough funds for investment, the company will utilize the fund they have to maximize sales.

The coefficient of Sustainable Growth Ratio (SGR) value was 2,001 which indicated that SGR had a positive influence on PER. It shows that every 1 unit increase in SGR will make the company value increase by 2,001 units. These results indicated that an increase in SGR will

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increase the value of the company. According to Dhani and Utama (2017) Company growth is a change (decrease or increase) in the total assets of the company where the growth of assets last year illustrates the comingfuture profitability and growth. Good company growth can be seen through the company's sales level from year to year increase.

Table 9. **Multiple Linear Regression Analysis Results**

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	19.143	10.115
EFN	-1.709	1.719
SGR	0.313	0.156

Source: Secondary Data2019, processed with SPSS 24.0 program

Based on table 9 shows the constant value for the multiple linear regression equation in this study was 19.143, while the value for the regression coefficient was -1.709 for EFN (External Financing Nedds), and 3.13 for the SGR (Sustainable Growth Rate) variable. The multiple linear regression equation was obtained as follows:

$$PER = 19.143 - 1.709\ EFN + 3.13\ SGR$$

The results of the multiple linear regression equation can be explained that the constant value of 19.143 (positive) means that if the EFN and SGR variables are zero (there are no changes), then the value of the manufacturing company is 19.143.

Conclusion. Based onthe results of research and discussion regarding the effect of External Financing Needs (EFN), and Suistanble Growth Rate (SGR) on firm value (PER) in manufacturing companies registered in the Indonesia Stock Exchange for the period of 2012-2016, the results of this study can be concluded, as follows:

External Financing Needs (EFN) in manufacturing companies had no significant effect on PER, meaning that the high and low EFN of a company does not affect the firm value of company.

Sustainable Growth Rate (SGR) in manufacturing companies had a significant effect on PER, meaning that the high and low SGR of a company will affect the firm value of company.

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