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Determinant Factors of Leverage – Based Firm Value, with Management Ownership Role as a Moderation

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A B S T R A C T
This study aims to analyze leverage on firm value and the moderating role of management ownership variables in the influence of leverage on the value of manufacturing companies listed on the Indonesia Stock Exchange for the period 2015-2020. The population of this research is all manufacturing companies on the Indonesia Stock Exchange for the 2015-2020 period. The sampling technique in this study uses purposive sampling with the criteria of manufacturing companies listed on the Indonesia Stock Exchange for the 2015-2020 period, with the total number of shares owned by the company's management above 1% of all outstanding shares so that the sample is 162. To see the type of moderation then used two equation models. The data was processed with SPSS'26 software. The result of the research is that leverage has a positive and significant effect on firm value. Management ownership is proven to moderate the effect of leverage on firm value. The existence of management ownership in its interaction with leverage and firm value is a pure moderator.

A B S T R A K
Penelitian ini bertujuan untuk menganalisis leverage terhadap nilai perusahaan dan peran moderasi variabel kepemilikan manajemen pada pengaruh leverage terhadap nilai perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2015-2020. Populasi penelitian ini adalah seluruh perusahaan manufaktur di Bursa Efek Indonesia periode 2015-2020. Teknik pengambilan sampel dalam penelitian ini menggunakan purposive sampling dengan kriteria perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2015-2020, dengan jumlah saham yang dimiliki oleh manajemen perusahaan di atas 1% dari seluruh saham yang beredar sehingga diperoleh sampel sebanyak 162. Untuk melihat jenis moderasi maka digunakan dua model persamaan. Data diolah dengan software SPSS'26. Hasil dari penelitian ini adalah leverage berpengaruh positif dan signifikan terhadap nilai perusahaan. Kepemilikan manajemen terbukti memoderasi pengaruh leverage terhadap nilai perusahaan. Keberadaan kepemilikan manajemen dalam interaksinya dengan leverage dan nilai perusahaan merupakan pure moderator.

INTRODUCTION

Management who is also a shareholder will always strive to increase the value of the company. The value of the company is very important because the goal of the company is to increase the value of the company which will have an impact on increasing the prosperity of the owners of capital (Nafisa et al, 2018). Firm value is a reflection of every financial management action and decision that affects the stock market price. Firm value is an investor's perception of the company, which is often associated with stock prices (Sadalia et al, 2017). Signaling theory is a concept originating from economics and social sciences that is used to explain how individuals or entities communicate information to other parties to influence their behavior. Signaling theory focuses on situations where there is uncertainty or information asymmetry between the parties involved in a transaction or interaction. This theory was first introduced in an economic context by Michael Spence in 1973 in his famous paper entitled "Job Market Signaling." Michael Spence is the principal founder of signal theory in an economic context. In his paper, Spence investigates how someone looking for work can signal to potential employers about his qualities or abilities as a worker. This theory was then developed and applied in various contexts, including education, information asymmetry in markets, and in understanding social behavior. Many factors affect firm value, including Leverage (Robinhot et al, 2013); 2013; Nazariah et al (2019); Hoque et al, (2014).

Aggarwal & Padhan (2017) debt policy is a policy that measures how much the company is financed with debt. The higher the proportion of debt determined by the company at a certain level, the lower the value of the company. The results of research by 2013; Robinhot et al (2013); Nazariah et al (2019); Hoque et al, (2014), stated that firm value was significantly affected by leverage and the relationship showed a negative movement. Meanwhile, the opposite research results from Ghalandari (2013), states that leverage has an insignificant effect, this shows that by taking debt into its capital structure a company cannot increase the stock market value. Besides the differences in the results of previous studies on the factors that affect firm value, it turns out that there is also a business phenomenon related to the increase and decrease in the average value of leverage which is not followed by an increase and decrease in the average value of the company in manufacturing companies on the Indonesia Stock Exchange period. 2015-2020.

Taking into account the various previous studies that have different results, it is assumed that management ownership as a component of good corporate governance will be expected to be able to overcome agency problems in the company. For this reason, management ownership is suspected to be a control over the value of the company considering that it can strengthen or weaken the effect of leverage on the value of the company. This, according to the researcher, is the novelty of this research. This study aims to analyze leverage on firm value and the moderating role of management ownership variables in the influence of leverage on the value of manufacturing companies listed on the Indonesia Stock Exchange for the period 2015 – 2020.

Leverage is a description of the company's ability to use assets from funding sources to create returns, which can also describe the company's capital structure. 2013Nafisah et al (2018) stated that the leverage that is re-poxed with the capital structure has a negative effect on firm value. The increase in leverage value can be a signal that the company prioritizes the use of external funds rather than maximizing the use of internal funds, this shows that management prioritizes the interests of creditors rather than increasing the welfare of shareholders, so it can be a negative signal that can reduce the value of the company. Debt policy according to Aggarwal & Padhan (2017) is a policy that measures how much the company is financed with debt. The higher the proportion of debt determined by the company at a certain level, the lower the value of the company. The results of research by Hoque et al (2014); Robinhot et al (2013); Nazariah et al (2019) found that leverage had a negative effect on firm value. H1. Leverage has a negative effect on firm value.

The use of debt for the company has a sensitive influence on the high and low value of the company. The higher the proportion of debt determined by the company at a certain level, the lower the value of the company. This is in line with the results of research conducted by Nafisah et al (2018) which states that leverage has a negative and significant effect on firm value. The company's funding structure is an important aspect that will be assessed by the market when they will make an investment. This is reinforced by Hoque et al (2014) which states that leverage as proxied by DER has a negative and significant effect on firm value. Rizkia et al (2013) stated that management ownership can reduce agency problems. Ownership of management can encourage management in its role as owner and at the same time as management of the company to continue to maximize the use of debt in operational activities in taking advantage of every opportunity for the company to earn income. Management ownership does not significantly strengthen the effect of leverage on firm value. Meanwhile, the results of the research by Samisi & Ardiana (2013) stated that the funding structure and management ownership generally affect the value of the company. H2: Management ownership strengthens the effect of leverage on firm value. Management ownership does not significantly strengthen the effect of leverage on firm value. Meanwhile, the results of the research by Samisi & Ardiana (2013) stated that the funding structure and management ownership generally affect the value of the company. H2: Management ownership strengthens the effect of leverage on firm value.

RESEARCH METHOD

The type of research is quantitative research. The research object is a generalization area consisting of objects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. The research object is manufacturing companies on the

IDX for the 2015-2020 period. The reason for using manufacturing companies is that manufacturing companies are the largest sector with the largest number of companies, apart from that, the manufacturing sector shares are the most actively traded.

The type of data used in this research is secondary data. Secondary data is data obtained from other parties or already available from several sources. Such as scientific books, magazines and writings that are relevant to this research. The population of this research is all manufacturing companies on the Indonesia Stock Exchange for the 2015-2020 period. The sampling technique in this study uses purposive sampling with the criteria of manufacturing companies listed on the Indonesia Stock Exchange for the 2015-2020 period, with the total number of shares owned by the company's management above 1% of all outstanding shares so that the total sample is 162 companies.

Data collection is based on secondary data documentation techniques by recording data originating from the financial statements of companies listed on the Indonesia Stock Exchange through the IDX website at the address www.idx.co.id. The data used are financial statements for the three-year period of the study, namely 2015 - 2020. Descriptive statistics provide an overview or description of data seen from the average value (mean), standard deviation, variance, maximum, minimum, sum, range. The data in this research was analyzed using descriptive statistical tools to provide an overview of the condition of the independent variables, dependent variables and moderating variables.

In this research, classical assumption tests were carried out consisting of normality tests, heteroscedasticity tests, multicollinearity tests and autocorrelation tests. The data was processed with SPSS 26 software. This study examines the effect of leverage on firm value. In addition, there is a management ownership variable to determine the moderating effect on the relationship between the independent variable and the dependent variable, using the absolute difference value equation model. To see the type of moderation, two equation models are used, so that the regression model equation becomes:

Equation 1:

$$FV = \alpha + \beta_1 L + \beta_2 MO + e$$

Equation 2:

$$FV = \alpha + \beta_1 L + \beta_3 (ABSL*MO) + e$$

Information:

L = Leverage
MO = Management Ownership
FV = Firm Value

α = Constant Variable
e = Standard Error

L and M0 values, the second equation is the standardized score (Zscore), (ABSL*MO) is the interaction value measured by the difference between the absolute values of L and M0.

RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics for each variable, where N is the amount of observed data, minimum is the lowest value of the variable produced by the sample company, maximum is the highest value of the variable produced by the sample company, mean is the average value of the variable produced by the sample company, and standard deviation is the data deviation value. Descriptive statistics are a set of techniques used in data analysis to summarize and describe the main characteristics of a dataset. These statistics provide a concise and meaningful way to understand the essential features of the data, which can help in making informed decisions, identifying patterns, and gaining insights. Some common descriptive statistics include:

Table 1 *Calculation of Minimum, Maximum, Mean, Standard Deviation*

Descriptive Statistics

	N	Minimum	Maximum	mean	Std. Deviation
Leverage	162	.0994	3.6093	.857728	.7183737
MO	162	.0102	.7000	.198878	.1726837
FV	162	.1973	7.2883	1.951530	1.6870349
Valid N (listwise)	162				

Source Table 1 *Secondary data processed, 2023*

By comparing the mean with the standard deviation it will help understand the distribution of the data better. A lower standard deviation value indicates that the data tends to be closer to the mean, while a higher standard deviation value indicates that the data is more widely spread out. Based on the table above, it turns out that the mean is greater than the standard deviation, meaning the data tends to be closer to the mean or normal data

Classical Assumption Test

The Normality Test

The normality test is carried out because the data tested with parametric statistics must have a normal distribution. A good regression model has a normal or close to normal data distribution. Normal data is indicated by a Kolmogorov-Smirnov test value which has a significance above 0.05. Based on the results of the Kolmogorov-Smirnov test, the independent variable leverage on the dependent variable, namely company value, is known to have a significance value above 0.05, namely 0.200, this shows that the existing data is normally distributed.

Heteroscedasticity Test

There are two ways to detect the presence or absence of heteroscedasticity, namely graphical methods and statistical methods. In this research, the heteroscedasticity test was carried out using the Glejser test statistical method. The Glejser test is carried out by regressing the absolute residual value against other independent variables. If the significant value is greater than 0.05, it indicates that there are no symptoms of heteroscedasticity in the model. The regression results of the absolute residual values on the independent variables studied stated that all independent variables obtained significance values above 0.05, so that overall it can be concluded that there is no heteroscedasticity problem.

Autocorrelation Test

Autocorrelation testing aims to test whether in the regression model there is a linear correlation between the confounding error for period t and the confounding error for period t-1. In this study, to detect autocorrelation problems, the Durbin-Watson Test (DW test) was used. The results of the autocorrelation test on the influence of leverage on company value, the Durbin Watson Calculation (dw) results in this study are 1.932, where 4 - 1.7720 = 2.228, so there is no autocorrelation problem because it is in the test area which is stated as "no autocorrelation" where du < d < 4-du, namely 1.772 < 1.932 < 2.228.

Hypothesis Test

Multiple regression analysis

Multiple regression analysis is a statistical method used to understand the relationship between two or more independent variables (also called predictor variables or independent variables) and one dependent variable (also called response variables or dependent variables). The main purpose of multiple regression analysis is to measure the extent to which the independent variables influence or explain variations in the dependent variable.**:**

The following are the results of multiple regression analysis

First Equation

Table 2 *Regression Calculation of the First Equation*

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	1.005	.203	4.948	.000
	Leverage	.440	.123	3.581	.001
	MO	.064	.072	.893	.375

Source Table 2 *Secondary data processed, 2023*

Based on the table above, it can be explained as follows:

Second equation

Table 3 *Regression Calculation of the Second Equation*

	Model	Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	.115	.136	.843	.402
	Zscore(Leverage)	.296	.091	3.255	.002
	Zscore(MO)	.068	.067	1.023	.310
	ABSLeverage*MO	-.161	.066	-2.429	.018

Source Table 3: *Secondary data processed, 2023*

Coefficient of Determination Test (R^2)

The coefficient of determination value shows the percentage of the dependent variable that can be explained by the independent variables. The coefficient of determination value can be obtained from the adjusted R^2 value. The results of the coefficient of determination of the influence of leverage on company value, the coefficient of determination (adjusted R^2) is 0.452 or 45.2%. This means that 45.2% of the company value variable can be explained by the independent variables, namely leverage, while the remainder is 54.8 % explained by other causes outside the regression model.

DISCUSSION

The Effect of Leverage on Firm Value

Based on the partial test calculation of the first equation, the value of t-count = 3.581 > t-table = 1.65431, and a significance value of 0.001 < 0.05, the value of 1 unstandardized coefficients is 0.440 the regression coefficient is positive, then Ha is accepted, so that the conclusion is obtained. that leverage has a positive and significant effect on firm value, which indicates that the influence of leverage on firm value is directly proportional, if leverage increases, firm value will also increase in value.

Based on the trade-off theory (TOT) funding concept, before reaching the maximum point, any additional use of debt will actually have a positive impact on the firm, because the benefits obtained are still greater than the sacrifices incurred. Each additional debt will provide an increase in company profits. From the point of view of the Pecking Order Theory (POT) funding concept, it shows that internal funding is not sufficient to finance profitable investment projects, so companies seek funds from debt. An increase in the value of leverage can be a signal that the company is developing a profitable business using debt, this shows that management is working well to improve the welfare of the owners of capital.

This research supports Hamidy et al. (2015); Marchyta & Astuti (2015); Pratama & Wirawati (2016) which states that leverage has a positive and significant effect on firm value. Meanwhile, the results of this study are contrary to Ghalandari (2013); 2 Thaib & Dewantoro (2017), states that leverage has an insignificant effect, this shows that by taking debt into its capital structure a firm cannot increase the stock market value.

Management Ownership Moderates the Effect of Leverage on Firm Value

Based on the partial test calculation of the second equation, the value of t-count = 2.429 > t-table = 1.65431 and a significance value of 0.018 <0.05, the value of 1 unstandardized coefficients is 0.161. The regression coefficient is negative, then Ha is accepted, so management ownership is able to moderating the effect of leverage on firm value, management ownership is a moderating variable in the interaction between leverage and firm value so that H2 is proven to be accepted.

Based on the results of the partial test in the first equation, it is found that the effect of management ownership on firm value is not significant, while the results of the partial test in the second equation show that management ownership is able to moderate the relationship between leverage and firm value significantly, so it is concluded that the existence of management ownership in its interaction with leverage and firm value is as a Pure Moderator (pure moderator variable).

Management ownership is able to moderate the relationship between leverage and firm value significantly. Assuming the absence of other variables, the regression coefficient of the interaction of management ownership with leverage and firm value of -0.161 indicates that any increase in the interaction value of management ownership with leverage of 1,000 will affect the decrease in firm value of 0.161.

Management ownership can encourage managers in their role as owners and at the same time management of the firm to continue to maximize the use of debt in operational activities in taking advantage of every opportunity for the company to earn income. The use of debt causes the income obtained is no longer optimally able to prosper investors, because the profits obtained must be divided among creditors. So that it can signal that management ownership actually makes the firm prioritize the use of capital from external parties by creating debt, this can certainly worry investors. The use of excessive debt is certainly not in accordance with the concept of trade-off theory which must consider the benefits of using debt. On the other hand, the use of debt in carrying out firm activities without prioritizing the use of internal funds is also not in accordance with the concept of Pecking Order Theory. This situation gives a negative signal to potential investors, so that the presence of management ownership can have a strong negative influence on the relationship between leverage and firm value. The results of this study support Hamidah et al (2015); Kusumawati & Rosady (2018) states that management ownership has a negative and significant effect on the interaction between leverage and firm value. However, in contrast to so that the presence of management ownership can have a strong negative influence on the relationship between leverage and firm value. The results of this study support Hamidah et al (2015); Kusumawati & Rosady (2018) which states that management ownership has a negative and significant effect on the interaction between leverage and firm value. However, in contrast to so that the presence of management ownership can have a strong negative influence on the relationship between leverage and firm value. The results of this study support Hamidah et al (2015); Kusumawati & Rosady (2018) which states that management ownership has a negative and significant effect on the interaction between leverage and firm value. However, in contrast to Samisi & Ardiana (2013); Pratama & Wirawati (2016) who stated that management ownership was not able to have an effect on the interaction between leverage and firm value.

CONCLUSIONS

Leverage partially has a positive and significant effect on firm value. This means that if leverage increases, it will have an impact on increasing firm value. Management ownership is proven to moderate the effect of leverage on firm value. This means that management ownership moderates the effect of leverage on firm value. The interaction between management ownership and leverage causes a decrease in firm value. The existence of management ownership in its interaction with leverage and firm value is a pure moderator.

The theoretical implication is that the research results support Hamidy et al. (2015); Marchyta & Astuti (2015); Pratama & Wirawati (2016), which states that leverage has a positive and significant effect on firm value. The results of this study support Hamidah et al (2015); Kusumawati & Rosady (2018); Kusumawati & Rosady (2018) that management ownership has a negative and significant effect on the interaction between leverage and firm value.

The managerial implication is that there are managerial policies that can be carried out by management in an effort to increase the value of the company. With management ownership in the company, making management the manager of the company, as well as the owner of the company, will certainly reduce conflicts of interest and encourage the realization of a Good Corporate Governance mechanism. Management ownership is expected to encourage the creation of efficiency and effectiveness in every company activity, as well as decision making that is oriented to the best interests of the company, so that management ownership will have a positive effect on the company's performance in achieving the goals for the prosperity of the owners of capital.

REFERENCES

Aggarwal, D. & Padhan, P. C. (2017), Impact of Capital Structure on Firm Value: Evidence from Indian Hospitality Industry. *Theoretical Economics Letters*. 7(4). 982-1000. DOI:10.4236/tel.2017.74067

Ghalandari, K. (2013). The moderating effects of growth opportunities on the relationship between capital structure and dividend policy and ownership structure with firm value in Iran: case study of Tehran securities exchange. *Research journal of applied sciences, engineering and technology*. 5(4): 1424-1431..

Hamidy, R.R., Wiksuana, I.G.B. & Artini, L.G.S. (2015). Pengaruh Struktur Modal Terhadap Nilai Perusahaan Dengan Profitabilitas Sebagai Variabel Intervening Pada Perusahaan Properti Dan Real Estate Di Bursa Efek Indonesia. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*. 4(10). 665-682

Hoque, J., Hossain, A., & Hossain K. 2014. Impact of capital structure policy on value of the firm – a study on some selected corporate manufacturing firms under dhaka stock exchange. *Ecoforum.* 3(2). 77-84

Marchyta, N.K. & Astuti, D. (2015). Pengaruh Struktur Modal dan Karakteristik Perusahaan Terhadap Profitabilitas dan Nilai Perusahaan. Jurnal FINESTA. 3(1). 13-18

Nafisah, N.I., Halim, A., & Sari, A.R. (2018). Pengaruh return on assets (ROA), debt to equity ratio (DER), current ratio (CR), return on equity (ROE), price earning ratio (PER), total assets turnover (TATO), dan earning per share (EPS) terhadap nilai perusahaan manufaktur yang terdaftar di BEI tahun 2014-2015. *Jurnal Riset Mahasiswa Akuntansi, JRMA.* 6(2). 1-17

Nazariah, Maisur & Masytari, A. (2019). Pengaruh rasio keuangan terhadap nilai perusahaan (Perusahaan manufaktur sektor industri barang konsumsi yang terdaftar di BEI tahun 2013-2017). *Jurnal Real Riset*. 1(2). 61-69

Pratama, I.G.G.W & Wirawati, N.G.P. (2016). Pengaruh struktur modal dan profitabilitas terhadap nilai perusahaan dengan kepemilikan manajerial sebagai pemoderasi. *E-Jurnal Akuntansi* 15(3). 1817-1825

Rizqia, D. A, Aisjah, S. & Sumiati. 2013. Effect of managerial ownership, financial leverage, profitability, firm size, and investment opportunity on dividend policy and firm value. *Research Journal of Finance and Accounting.* 4(11). 120-130

Robinhot, G., Agustina, & Wijaya, S.W. (2013). Analisis faktor-faktor yang mempengaruhi nilai perusahaan pada perusahaan farmasi di bursa efek indonesia. *Jurnal Wira Ekonomi Mikroskil.,* 3(01). 51-60

Sadalia, I. Simanjuntak, S. & Butar-Butar,N.A. (2017). An analysis of the determinants of capital structure and their influence on firm value (a case study on manufacturing companies investors in Southeast Asia). *International Journal of Applied Business and Economic Research.* 15 (19), 165-177

Samisi, K. & Ardiana, P.A. (2013). Pengaruh struktur pendanaan terhadap nilai perusahaan dengan kepemilikan manajerial sebagai variabel moderasi. *E-Jurnal Akuntansi*. 5(3). 451-469.

Thaib, I. & Dewantoro, A. (2017). Pengaruh profitabilitas dan likuiditas terhadap nilai perusahaan dengan struktur modal sebagai variabel intervening (Studi pada perusahaan transportasi laut di Bursa Efek Indonesia. *Jurnal Riset Perbankan Manajemen dan Akuntansi*. 1(1). 25-44