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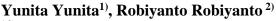
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The Influence of Corporate Internal Factors and Market Risk on Company Value with Capital Structure as Mediation Variables in **Manufacturing Companies in Indonesia Stock Exchange**



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ABSTRACT

This study examines the influence of internal company factors such as profitability, company size, business risk, company growth rate and external factors of the company, namely market risk on the company's capital structure as a mediating variable that affects the value of the company. This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange in the study period of 2013 to 2018 and a sample of 82 companies. This study found that profitability and company size factors have a significant influence on the company's capital structure, but business risk, growth rates, and market risk do not have a significant effect on capital structure. Then capital structure has a significant influence on firm value.

Keyword: Capital structure; Company value; Manufacture industry; Indonesia Stock Exchange; Business risk

Pengaruh Faktor Internal Perusahaan Dan Risiko Pasar Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Mediasi Pada Perusahaan Manufaktur Di Bursa Efek Indonesia

ABSTRAK

Penelitian ini menguji pengaruh faktor internal perusahaan seperti profitabilitas, ukuran perusahaan, risiko bisnis, tingkat pertumbuhan perusahaan serta faktor eksternal perusahaan yaitu risiko pasar terhadap struktur modal perusahaan sebagai variabel mediasi yang mempengaruhi nilai perusahaan. Penelitian ini dilakukan terhadap perusahaan manufaktur tercatat di Bursa Efek Indonesia dalam periode waktu penelitian tahun 2013 hingga 2018 dan sampel berjumlah 82 perusahaan. Penelitian ini menemukan bahwa faktor profitabilitas dan ukuran perusahaan memiliki pengaruh signifikan terhadap struktur modal perusahaan, tetapi risiko bisnis, tingkat pertumbuhan dan risiko pasar tidak memiliki pengaruh signifikan terhadap struktur modal. Kemudian struktur modal memiliki pengaruh signifikan terhadap nilai perusahaan.

Kata kunci: struktur modal, nilai perusahaan, industri manufaktur, bursa efek Indonesia, risiko bisnis

PRELIMINARY

The determinants of capital structure have been one of the most debated topics in the financial literature since Modigliani and Miller introduced the capital structure proposition in 1958 and 1963 (Sofat & Singh, 2016). Several theories were developed to explain the company's financial decisions, including trade off theory, pecking order theory, agency theory, signal theory and equity market timing theory (Chen et al., 2013).

The capital structure is generally composed of debt, common stock and preferred stock which is used to finance the company's long-term projects. Equity holders are owners and have long-term commitments to the company, bondholders are creditors and do not have long-term commitments to the company because bondholders are more interested in timely repayment of debt and interest. Shareholders want regular dividend payments and the company wants retained earnings to finance future cash outlays.

Several capital structure theories have different views on capital structure, both in terms of policies and objectives (Chen et al., 2013), for example: (1) The pecking order theory states that companies will prefer internal funds for funding rather than external funds which are more risky. (2) The trade off theory states that the company will increase its debt to avoid a higher tax rate, but besides that the company will face the risk of bankruptcy. (3) Agency theory which states that corporate debt is used as a discipline tool for managers to maximize profits. (3) Signaling theory which states that managers tend to have better information about the company than investors, which results in information asymmetry so that the perceptions of investors and managers if the company increases its debt will be different.

Several empirical studies have been conducted to study the relationship between the determinants of capital structure using company external factors such as market risk or systematic risk, and company internal factors such as profitability, business risk, company size and company growth rate, including: (1) Khairin and Harto (2014), Sutomo et al. (2019) which results in the conclusion that market risk has a positive effect on capital structure, then research by Hadianto and Tayana (2010) found that market risk is also able to explain the capital structure of mining sector companies on the IDX. (2) suggests that market risk has a negative effect on the company's capital structure. (3) Sofat and Singh (2016) found that business risk and profitability affect the capital structure of listed manufacturing companies in India, while firm size has no effect. (4) Gomez et al. (2014) show that the level of profitability and firm size affect the capital structure of non-financial sector companies registered in Peru, but not with the growth rate of the company and the company's business risk. (5) Dewi (2014) concludes that profitability and company size have no significant effect on the capital structure of mining sector companies.

There are several previous studies that examine the effect of capital structure on firm value, including research by Sari et al. (2013), Pratama and Wirawati (2016), and Anggriawan et al. (2017) found that an increased capital structure would reduce firm value, while research by Hermuningsih (2013), Gayatri and Mustanda (2014), Pantow et al. (2015) and Marchyta and Astuti (2015) find that an increased capital structure actually increases firm value. Then research by Ogolmagai (2013) and Prasetia et al. (2014) found that capital structure has no effect on firm value.

Various previous studies still rarely combine internal and external factors of companies, especially in Indonesia, where the factors that are generally used by previous studies are mostly internal factors only. Even though the company's external factors can also affect the company's capital structure, based on this, this study examines the internal and external factors of manufacturing sector companies listed on the Indonesia Stock Exchange in a span of 6 years, from 2013 to 2018. The company's internal factors used including profitability, company size, business risk and growth rate as well as the company's external factor used is market risk. This study also uses capital structure as a mediating variable of the factors mentioned earlier on firm value. This study uses signaling theory as the basis for analyzing phenomena on the Indonesia Stock Exchange. The variables used in this study are internal factors such as profitability, company size, business risk and growth rate as well as external factors such as market risk. These variables are expected to be a signal for

determining the capital structure which will ultimately affect the value of the company. This study in addition to using signaling theory as the basis for selecting variables, also adopts the suggestions of Khairin and Harto (2014) and Hadianto and Tayana (2010) related to the use of company internal factors and profitability factors, as well as the use of company external factors which are suggestions from Sari et al. (2013) in addition to inflation and exchange rates.

In general, increasing profitability will increase the company's retained earnings. The company will use the retained earnings to fund operations or investment activities first rather than using external sources of funds. Higher profitability can also be a signal regarding the potential decline in the use of external funds. This is supported by the research of Santika and Sudiyatno (2011), Murhadi (2011), Sari et al. (2013), Chen et al. (2013), Gomez et al. (2014) Chadha and Sharma (2015), Sumani (2015), Chipeta and Deressa (2015), Sofat and Singh (2016), Nur and Siahaan (2016), who found that the greater the profitability of the company, the less likely the company is to borrow debt. Profitability is measured by using the ratio of net income to total assets (ROA). Therefore, the hypothesis is formulated as follows:

Hal: Profitability has a negative effect on the company's capital structure.

Firm size can be considered as a proxy for information asymmetry between the company's internal parties and external parties such as public investors. So companies will be more careful in announcing more sensitive equity information, and have less debt (Utami, 2012). This is supported by research by Chadha and Sharma (2015), Eventyci (2015), Sofat and Singh (2016), Nur and Siahaan (2016), Wijaya and Jessica (2018) which found a negative relationship between firm size and capital structure in short-term. This variable is measured using the logarithm of the total assets owned by the company according to research by Chadha and Sharma (2015) and Sofat and Singh (2016), so the hypothesis formulated is as

Ha2: Firm size has a negative effect on the firm's capital structure.

Volatility or also called variability in company earnings is a measure of business risk. The more volatile cash flows increase the likelihood of default or bankruptcy, resulting in a positive relationship between leverage and cash flow volatility. A positive relationship between business risk and capital structure is also found in research by Sofat and Singh (2016), Serrasqueiro and Caetano (2015), Andika and Fitria (2017). Business risk is measured by the standard deviation of ROE. Referring to these various explanations, the following hypothesis is formulated:

Ha3: Business risk has a positive influence on the company's capital structure.

Growing companies will need more and more funds from internal and external company funds. This growth encourages companies with relatively high growth rates in the form of internal and external funding which in turn can lead to higher leverage (Utami, 2012). Sheikh and Wang (2011), Santika and Sudiyatno (2011), Hermuningsih (2013), Chen et al. (2013), Sari et al. (2013), Matemilola et al. (2013), Gomez et al. (2014), Eventvci (2015), Oino and Ukaegbu (2015) also found the same thing where companies owe more if the growth experienced is higher, so the hypothesis is formulated as follows:

Ha4: The growth rate has a positive effect on the company's capital structure.

Hadianto and Tayana (2010), Hournes et al. (2012), Khairin and Harto (2014), Stelk et al. (2017), Beltrame et al. (2018) also found that the higher the market risk, the company will use greater debt in its capital structure. This shows that market risk can be a signal for the use of greater debt because this market risk will increase the cost of shares in the context of the Capital Asset Pricing Model (CAPM), this is in line with signaling theory, so the hypothesis is formulated as follows:

Ha5: Market risk has a positive influence on the company's capital structure.

The occurrence of asymmetric information between the management and the investors causes the value of the company's shares to decrease. The asymmetric information is due to the negative sentiment of the company's external parties due to increased debt, which considers the risk of default or bankruptcy of the company to be higher so that investors do not want to invest in the company and creditors do not want to lend funds to the company, which causes the demand for the company's shares to fall., then the stock price fell. In addition, debt that is too high will increase the potential for bankruptcy of the company, which results in poor company value, according to the trade off theory. However, for the survival of the company, it is impossible for the company to not owe at all and rely entirely on internal funds because it is limited. So the amount of debt owned must be optimal so that the value of the company does not decrease. Mahendra et al. (2012), Sari et al. (2013), Hermuningsih (2013), Sumani (2015), Nguyen (2015), Osazuwa and Che-Ahmad (2015), Mangondu and Diantimala (2016), Ho and Ellis (2017), Anggriawan et al. (2017), and Ibhagui and Olokoyo (2018) also find that an increased capital structure will decrease firm value, so the hypothesis is formulated as follows:

Ha6: Capital structure has a negative effect on firm value.

RESEARCH METHODS

The population in this study were all manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The number of samples taken in this study were 82 companies, and the sampling used purposive sampling. The criteria for sampling the financial data of manufacturing sector companies in Indonesia include (1) the company is consistently listed on the Indonesia Stock Exchange until 2018, so that the data obtained is complete and balanced (the number of observation periods and the number of issuers do not change); (2) Issuers' shares do not experience stock splits, reverse stocks, and experience drastic and unnatural price changes, because to calculate market risk the company's stock price data required must be stationary; (3) The company's Debt to Equity Ratio is not negative, because the company's equity is negative due to continuous losses that result in negative DER, which has the potential to cause outlier data.

The data in this study were obtained from the Indonesia Capital Market Directory from 2013 to 2018 (Indonesian Stock Exchange, 2013, 2014, 2014, 2015, 2016, 2017, 2018). For external factor data, market risk is proxied by beta (β) . The data was obtained from the Investing.com page. The variables used in this study are capital structure, profitability, company size, company business risk, growth rate, market risk, and firm value.

Capital structure is one of the determinants of the company's financial condition which is generally measured using the Debt to Equity (DER) ratio, in accordance with previous research by Sari et al. (2013), Chipeta and Deressa (2015), and Sofat and Singh (2016) with the following formula:

$$DER = \frac{Total\ Debt}{Total\ Equity} \tag{1}$$

Where:

DER = Debt Equity Ratio

Total Debt = Total Debt borne by the company (in rupiah)

Total Equity = Total Equity owned by the company (in rupiah)

Profitability is the level of possibility of a company to generate profit/profit, which is measured by using the ratio of return on assets (ROA). The measure of profitability with ROA has been carried out by Chen et al. (2013), Sumani (2015), Sofat and Singh (2016), with the following calculation formula:

$$ROA = \frac{Net\ Profit}{Total\ Asset} \tag{2}$$

Where:

ROA = Return on Assets (ratio of net income on assets) of the company

Net Income = Net profit earned by the company (in rupiah)

Total Asset = Total assets owned by the company (in rupiah)

Company size is measured by calculating the logarithm of the total assets owned by the company as a measure, according to previous research by Chadha and Sharma (2015), Chipeta and Deressa (2015), and Sumani (2015) with the following calculations:

$$SIZE = Ln(Total Asset)$$
(3)

The company's business risk is measured by the level of income volatility obtained by the company with the size of the calculation of the standard deviation of the company's return on equity, in accordance with previous research by Chen et al. (2013) with the following calculations:

Where:

Risk = Company's business risk

ROE = Return on Equity (ratio of net income to equity) company

Net Income = Net profit earned by the company (in Rupiah)

Total Equity = Total equity/capital owned by the company (in Rupiah)

Growth rate, is a measure of how high a company is growing as measured by the percentage difference in sales with the previous year. This measure was used in previous studies such as research by Nur and Siahaan (2016) with the following calculations:

$$GROWTH = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}} x 100\%$$
 (5)

Where:

Growth = company growth rate (in percent)

Sales t =Sales of the company in year t (in rupiah)

Sales t-1 = Company sales in year t-1 (in rupiah)

Market risk or systematic risk is the magnitude of the risk faced by the entire company and cannot be diversified, as measured by the results of the calculation of beta (β) regression results between market returns and company stock returns.

Firm value is measured by the ratio of Price to Book Value (PBV). PBV compares the market price with the company's book price. This measure is commonly used in previous research by Nur and Siahaan (2016) which is calculated by the following formula:

PBV=(Market Value)/(Book Value)(7)

Where:

PBV = Price to Book Value (ratio of market price to book price) company

Market Value = The company's stock price prevailing in the market

Book Value = The price of the company's shares according to the company's records

The data analysis technique used in this research is panel data regression. The model used is as follows:

$$PBV_{it} = \beta 6 (ESTDER)_{it} + \varepsilon_{it}$$
 (9)

Where:

DER = Debt to Equity Ratio of the company ESTDER = DER estimation result using equation (8)

 $\alpha = constant$

PROFITABILITY = Return On Assets of the company (profitability)

SIZE = Company size

RISK = Company's business risk GROWTH = company growth rate

BETA = market risk / systematic risk

PBV = Price to Book Value of the company (company value)

 ϵ = error term

In selecting the right panel data estimation model, several tests were carried out, including: Chow Test (Likelihood Ratio Test), Hausman Test, and Lagrange Multiplier (LM) Test. After the Chow and Hausman tests were conducted, the results showed that this study used common effects, therefore the regression results that would be interpreted were the estimation results of the common effect model.

RESULTS AND DISCUSSION

Statistics d eskriptif data used to examine the determinants of capital structure on the value of manufacturing companies listed on the Stock Exchange Indonesia summarized in Tabel 1.

The number of observations used in this study were 492 observations, from 82 sample companies and annual data from 2013 to 2018. The data used are *balanced panel data*. In determining the panel data regression model, the tests carried out include the Chow test,

Hausmann test, and the Lagrange Multiplier test to determine whether the appropriate regression model in this study is one of fixed effect, random effect, or common effect.

Table 1. Descriptive Statistics Data

Variable	N	Minimum	Maximum	Average	Standard Deviation
Profitability	492	-0.3222	0.4649	0.0542	0.0840
Company Size	492	23.9868	32.2066	28,4815	1.5946
Business Risk	492	0.0069	1.1778	0.0968	0.1311
Growth Rate	492	-0.7341	1.9253	0.0846	0.2511
Market Risk	492	-1.0230	4.2610	0.5476	0.5160
Capital Structure	492	0.0237	11.2544	1.1764	1.1392
The value of the company	492	0.0500	58,4800	2.2729	5.3423

Source: Indonesia Capital Market Directory 2013-2018, processed.

The Chow test was used to determine whether the panel data regression model used used a fixed effect or a common effect, which is described by T table 2. Based on Table 2, it can be seen that the probability level obtained is not significant, so the regression model used based on the Chow test is a common effect.

Table 2. Chow Test Results

Effects Test	Statistics	df	Prob.
Period F	0.257910	(5,480)	0.9358
Period Chi-square	1.317336	5	0.9331

Source: Indonesia Capital Market Directory 2013-2018, processed.

The Lagrange Multiplier test is used to determine whether the panel data regression a common effect or a random effect, which described model used is is in Table 3. Table 3 shows that the level of significance in Breusch-Pagan is not significant because the value is greater than 0.05; Therefore, the panel data regression model used in this study is the common effect model or ordinary least square (OLS). The regression of the determinants of the capital structure of manufacturing companies listed on the Indonesia Stock Exchange uses the Common Effect Model or Ordinary Least Square (OLS) regression, which is shown in Table 4.

Table 3. Lagrange Multiplier Test Results

	Hypothesis Test			
	Cross-section	Time	Both	
Breusch-Pagan	0.000608	1.863307	1.863915	
	(0.9803)	(0.1722)	(0.1722)	
Honda	-0.024664	-1,365030	-0.982662	
King-Wu	-0.024664	-1,365030	-1.365171	
Standardized Honda	-0.021180	-1.176017	-183.3099	
Standardized King-Wu	-0.021180	-1.176017	-5.016148	
Gourierioux, et al.*			0.000000	
			(>=0.10)	

^{*}Mixed chi-square asymptotic critical values: 1% 7,289 5% 4,321 2,952 10%

Source: Indonesia Capital Market Directory 2013-2018, processed.

Table 4 Results	of Regression	Determinants of	of Capital Structure
Table 7. Results) UL IXCEL COSIUL	i Determinants o	n Cabitai Structure

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.2706	0.7937	-6,6402	0.000*
PROFITABILITY	-3.1756	0.5078	-6.2533	0.000*
FIRM_SIZE	0.1794	0.0281	6.3809	0.000*
RISK	2.0283	0.3270	6,2027	0.000*
GROWTH	-0.0094	0.0377	-0.2487	0.8037
BETA	-0.0280	0.0811	-0.3454	0.7300
R-squared	0.2625	Mean dependent var		-0.1624
Adjusted R-squared	0.2518	SD dependent var		0.8873
SE of regression	0.7675	Akaike info criterion		2.3258
Sum squared resid	201.4891	Schwarz criterion		2.3923
Likelihood logs	-398,7053	Hannan Quinn Criter.		2.3523
F-statistics	24.3571	Durbin-Watson stat		0.3805
Prob(F-statistic)	0.0000			

^{*} Significant at 1% level

Source: Indonesia Capital Market Directory 2013-2018, processed.

Based on the regression results, the determinants of capital structure, growth variables, and market risk have no significant effect on the capital structure of manufacturing companies. Other variables, namely profitability has a significant negative effect, company risk has a significant positive effect, and company size has a significant positive effect on the capital structure of manufacturing companies. From the regression results, the accepted hypotheses are Ha1 and Ha3, while Ha2, Ha4, and Ha5 are rejected.

The profitability variable has a significant negative effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange with a coefficient of - 3.1756. This is because if the company's profits increase, the company will not borrow more debt and the need for funds can be obtained from these profits. The increased profit rate will increase the company's fund reserves, so the company will use internal funding first rather than using external funds because the internal fund reserves are getting more and more from the company's profits. Therefore, H1 is accepted. These results are in accordance with research by Nur and Siahaan (2016), Sofat and Singh (2016), Chipeta and Deressa (2015), Sumani (2015), Gomez et al. (2014), Chen et al. (2013), Sari et al. (2013), Santika and Sudiyatno (2011), and Murhadi (2011).

Firm size variable has a significant positive effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange with a coefficient of 0.1794. This happens because the larger the size of the company, the company's tendency to use external funds is also getting higher because the financing is getting bigger while the company's internal fund reserves are limited. The greater financing is the result of the company's activities being increasingly diversified (having various businesses) as a result of the increasing size of the company. These results are in accordance with research by Kartika (2016), Serrasqueiro and Caetano (2015), Marchyta and Astuti (2015). Therefore, Ha2 is rejected.

The company's business risk variable has a significant positive effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange with a coefficient of 2.0283. This result is in accordance with research by Zeitun and Tian (2014), Sofat and Singh (2016), Serrasqueiro and Caetano (2015), Andika and Fitria (2017), and contradicts research by Prasetya and Asandimitra (2014), Sawitri and Lestari (2015), Margaretha and Ginting (2016), Erosvitha and Wirawati (2016), and Kaliman and Wibowo (2017). Therefore, Ha3 is accepted.

The company's growth rate variable has an insignificant negative effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange with a coefficient of -0.0094. This result is in accordance with research by Marchyta and Astuti (2015), Kartika (2016), and contrary to the results of research by Khairin and Harto (2014), Wijaya and Jessica (2018), and Eventvci (2015). Therefore, the Ha4 hypothesis is rejected.

The market risk variable has an insignificant negative effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange with a coefficient of -0.0280. These results are in accordance with research by Susanto (2011), and not in accordance with research by Hadianto and Tayana (2010), Hournes et al. (2012), Khairin and Harto (2014), Stelk et al. (2017), Beltrame et al. (2018), Brownless and Engle (2017). Therefore, Ha5 is rejected.

The overall ability of the independent variables as determinants of capital structure in explaining the capital structure of manufacturing companies in Indonesia in 2013-2018 is 26.25%; the remaining 73.75% is influenced by variables outside the model.

The panel data regression used in analyzing the effect of corporate capital structure on the value of manufacturing companies listed on the IDX is the common effect model, with the regression results in Table 5. The regression results between capital structure and firm value indicate that capital structure has a significant positive effect on firm firm value. manufacturing with a coefficient of 1.933. This is because if the company is in debt, investors assume that the company has investment plans such as expansion, mergers, acquisitions, and others that are expected to produce good prospects so that the company's stock price increases and causes the price to book value (PBV) to increase. In addition to investment planning, increased debt levels also encourage free and excessive control of the use of cash funds by company managers, so that increased company control will generate a positive signal for stakeholders which results in increased company value, followed by a lower company stock price ride.

The results of the analysis show that Ha6 is rejected. This is in accordance with research by Moniaga (2013), Marchyta and Astuti (2015), Pantow et al. (2015), Samosir (2017), and Chasanah and Adhi (2017), as well as contradicting research by Mahendra et al. (2012), Sari et al. (2013), Hermuningsih (2013), Sumani (2015), Nguyen (2015), Osazuwa and Che-Ahmad (2015), Mangondu and Diantimala (2016), Ho and Ellis (2017), Anggriawan et al. (2017), and Ibhagui and Olokoyo (2018).

The ability of the capital structure variable in explaining the firm value as measured by PBV is 22.18%; the remaining 77.82% is influenced by variables outside the model. This often happens because many factors can affect the variability of firm value.

Table 5. Result of Regression of Capital Structure on Firm Value

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.1279	0.0471	-2.7124	0.007*
DER	1.1933	0.0971	11.8201	0.000*
R-squared	0.2218	Mean depende	0.1124	
Adjusted R-squared	0.2202	SD dependent	1.0687	
SE of regression	0.9437	Akaike info ci	2.7260	
Sum squared resid	436,3807	Schwarz criterion		2.7431
Likelihood logs	-668,6067	Hannan Quinn Criter.		2.7327
F-statistics	139.7157	Durbin-Watson stat		0.7560
Prob(F-statistic)	0.0000			

^{*} Significant at 1% level

Source: Indonesia Capital Market Directory 2013-2018, processed.

In general, the results of this study support the signaling theory because an increasing level of profitability and company size can be a signal to stakeholders that the company is considered better than other companies, and higher business risk can be a signal that the company's debt level will increase. In addition, a capital structure that increases by a certain amount can be a signal that the company will make investments that are expected to increase profits, or that the company's internal control will increase so as to increase the value of the company. The results of this study also have implications that investors need to pay attention to the independent variables studied in this study because profitability and market risk can affect the capital structure which in turn also affects the firm value.

CONCLUSION

This study concludes that the company's internal factors, namely profitability, company size and business risk have a significant influence on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange. Meanwhile, the company's internal factor that does not have a significant influence on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange is the company's growth rate, due to the characteristics of the manufacturing company itself which often sells on credit or receivables and the uncertainty that is difficult to predict. The external factor used in this study is market risk, after being tested it shows that this variable has an insignificant effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange. Then the capital structure after being tested has a significant positive effect on firm value.

The results of this study can be useful as a reference in the financial literature, especially the literature on the company's capital structure. This research supports theories related to capital structure, especially signaling theory. The practical implication based on the results of this study is that companies should be careful in making decisions on the proportion of capital structure because it also affects the value of the company and the prospects of investors regarding the company. Investors should consider the debt policy of the company to be invested, especially manufacturing companies listed on the Indonesia Stock Exchange because the capital structure of manufacturing companies is strongly influenced by the level of profit and the size of the company which is considered by creditors in lending funds, and will affect the return on investment made.

This study still has several limitations, including the ability of the model to explain the dependent variable is still lacking, seen from the R2 value of 0.2625 for the determinants of capital structure and 0.2218 for capital structure on firm value. In addition, there is a possibility that the business risk used as a determinant of capital structure in this study is influenced by capital structure. The use of analytical tools such as the Granger Causality Test can be used in future research to examine the dependent and independent variables. Market risk used in this study is leveraged beta (beta calculated by including the debt component).

Future research is suggested to add other variables, both internal to the company such as retained earnings, ownership structure, and dividend payment ratio as well as external companies such as exchange rates and interest rates so that the model's ability to explain the dependent variable increases. In addition, it is necessary to explore the reciprocal relationship between business risk and capital structure because there is a possibility that capital structure has an influence on business risk.

REFERENSI

- Acaravci, S. K. (2015). The Determinants of Capital Structure: Evidence from the Turkish Manufacturing Sector. International Journal of Economics and Financial Issues, 5(1), 158-171.
- Andika, A. P., & Fitria, A. (2017). Pengaruh Struktur Aktiva, Ukuran perusahaan, Profitabilitas, dan Risiko Bisnis Terhadap Struktur Modal. Jurnal Ilmu dan Riset Akuntansi, 5(9).
- Anggriawan, F., Topowijono, T., & Sudjana, N. (2017). Pengaruh Struktur Modal Terhadap Nilai Perusahaan (Studi Pada Perusahaan Sub Sektor Makanan dan Minuman Yang Listing Di Bursa Efek Indonesia Tahun 2011-2015). Jurnal Administrasi Bisnis, *50*(4), 105-114.
- Beltrame, F., Previtali, D., & Sclip, A. (2018). Systematic risk and banks leverage: the role of asset quality. Finance Research Letters. 27, 113-117.
- Brownless, C., & Engle, R. F. (2017). SRISK: A Conditional Capital Shortfall Measure of Systemic Risk. *The Reviews of Financial Studies*, 30(1), 48-79.
- Bursa Efek Indonesia (2012), Indonesia Capital Market Directory 2012.
- Bursa Efek Indonesia (2013), Indonesia Capital Market Directory 2013.
- Bursa Efek Indonesia (2014), Indonesia Capital Market Directory 2014.
- Bursa Efek Indonesia (2015), Indonesia Capital Market Directory 2015.
- Bursa Efek Indonesia (2016), Indonesia Capital Market Directory 2016.
- Bursa Efek Indonesia (2017), Indonesia Capital Market Directory 2017.
- Bursa Efek Indonesia (2018), Indonesia Capital Market Directory 2018.
- Chadha, S., & Sharma, A. K. (2015). Determinants of capital structure: an empirical evaluation from India. Journal of Advances in Management Research, 12(1), 3-14.
- Chasanah, A. N., & Adhi, D. K. (2017). Profitabilitas, Struktur Modal dan Likuiditas Pengaruhnya Terhadap Nilai Perusahaan Pada Perusahaan Real Estate yang Listed di BEI Tahun 2012-2015. Fokus Ekonomi, 12(2), 131-146.
- Chen, J., Jiang, C., & Lin, Y. (2013). What determine firms' capital structure in China? Managerial FInance, 10(40), 1024-1039.
- Chipeta, C., & Deressa, C. (2015). Firm and country specific determinants of capital structure in Sub Saharan Africa. International Journal of Emerging Markets, 11(4), 649-673.
- Dewi, D. A. K. (2014). Analisis Faktor yang Mempengaruhi Struktur Modal: Studi Kasus pada Perusahaan Pertambangan yang Terdaftar di BEI Periode 2009-2012. (S-1), Universitas DIponegoro, Semarang.
- Erosvitha, C. K. L., & Wirawati, N. G. P. (2016). Pengaruh Profitabilitas, Set Kesempatan Investasi,, Pertumbuhan Penjualan dan Risiko Bisnis pada Struktur Modal. E-Jurnal Akuntansi Universitas Udayana, 14(1), 172-197.
- Gayatri, N. L. P. R., & Mustanda, I. K. (2014). Pengaruh Struktur Modal, Kebijakan Dividen Dan Keputusan Investasi Terhadap Nilai Perusahaan. E-Jurnal Manajemen *Universitas Udayana*, 3(6), 1700-1718.
- Gomez, G., Rivas, A. M., & Bolanos, E. R. L. (2014). The determinants of capital structure in Peru. Academia Revista Latinoamericana de Administracion, 27(3), 341-354.
- Hadianto, B., & Tayana, C. (2010). Pengaruh Risiko Sistematik, Struktur Aktiva, Profitabilitas, dan Jenis Perusahaan Terhadap Struktur Modal Emiten Sektor Pertambangan: Pengujian Hipotesis Static-Trade Off. Jurnal Akuntansi, 2(1), 15-39.
- Hermuningsih, S. (2013). Pengaruh Profitabilitas, Growth opportunity, sruktur Modal terhadaP nilai Perusahaan Pada Perusahaan Publik di indonesia. Buletin Ekonomi Moneter dan Perbankan, 127-148.
- Ho, X. V., & Ellis, C. (2017). An empirical investigation of capital structure and firm value in Vietnam. Finance Research Letters, 22, 90-94.

- Hournes, R. E., MacArthur, J. B., & Stranahan, H. (2012). The operating leverage impact on systematic risk within a context of choice. *Managerial FInance*, 38(12), 1184-1202.
- Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: New evidence on the role of firm size. *North American Journal of Economics and Finance*, 2(2), 1-26.
- Investing.com. (2018). Indeks IDX Composite. Retrieved from https://id.investing.com/indices/idx-composite
- Kaliman, R., & Wibowo, S. (2017). Pengaruh Ukuran perusahaan, Risiko Bisnis, Growth, Profitabilitas, Likuiditas, dan Sales Growth Terhadap Struktur Modal Pada Sektor Farmasi yang Tercatat di BEI. *Jurnal Bisnis dan Akuntansi*, 19(3), 185-190.
- Kartika, A. (2016). Pengaruh Profitabilitas, Struktur Aset, Pertumbuhan Penjualan, dan Ukuran Perusahaan terhadap Struktur Modal Perusahaan Manufaktur di Bursa Efek Indonesia. *Infokam*, 12(1), 49-58.
- Khairin, M. Y., & Harto, P. (2014). Pengaruh Growth Opportunity, Profitabilitas, Fixed Asset Ratio dan Risiko Pasar Terhadap Struktur Modal. *Diponegoro Journal of Accounting*, *3*(2), 1-12.
- Mahendra, A. D., Artini, L. G. S., & Suarjaya, A. A. G. (2012). Pengaruh kinerja keuangan terhadap nilai perusahaan manufaktur di Bursa Efek Indonesia. *Jurnal Manajemen, Strategi Bisnis, dan Kewirausahaan, 6*(2), 130-138.
- Mangondu, R., & Diantimala, Y. (2016). Pengaruh Struktur Modal Terhadap Nilai Perusahaan dan Kinerja Perusahaan Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis*, 3(1), 62-69.
- Marchyta, N. K., & Astuti, D. (2015). Pengaruh Struktur Modal dan Karakteristik Perusahaan Terhadap Profitabilitas dan Nilai Perusahaan. *Finesta*, *3*(1), 13-18.
- Margaretha, F., & Ginting, K. R. (2016). Faktor-Faktor yang Mempengaruhi Struktur Modal pada Perusahaan BUMN di Indonesia. *Jurnal Ekonomi Universitas Esa Unggul*, 7(1), 55-67.
- Matemilola, B. T., Bany-Ariffin, A. N., & McGowan, C. B. (2013). Unobservable effects and firm's capital structure determinants. *Managerial FInance*, *39*(12), 1124-1137.
- Moniaga, F. (2013). Struktur Modal, Profitabilitas, dan Struktur Biaya Terhadap Nilai Perusahaan Industri Keramik, Porselen dan Kaca Periode 2007-2011. *Jurnal Emba*, *1*(4), 433-442.
- Murhadi, W. R. (2011). Determinan Struktur Modal: Studi di Asia Tenggara. *Jurnal Manajemen & Kewirausahaan*, 13(2), 91-98.
- Nguyen, N. (2015). Does hedging increase firm value? An examination of Swedish companies. (The Master Program in Finance), Lund University,
- Nur, T., & Siahaan, S. P. (2016). Determinan Struktur Modal dan Nilai Perusahaan. *ESENSI*, 19(3), 1-18.
- Ogolmagai, N. (2013). Leverage Pengaruhnya Terhadap Nilai Perusahaan Pada Industri Manufaktur yang Go Public di Indonesia. *Jurnal Emba*, 1(3), 81-89.
- Oino, I., & Ukaegbu, B. (2015). The Impact of probability on capital structure and speed of adjustment: An empirical examination of selected firms ini Nigerian Stock Exchange. *Research in International Business and Finance*. *3*, 111-121.
- Osazuwa, N. P., & Che-Ahmad, A. (2015). The moderating effect of profitability and leverage on the relationship between eco-efficiency and firm value in publicly traded Malaysian firms. *Social Responsibility Journal*, 11(1), 60-79.
- Pantow, M. S., Murni, S., & Trang, I. (2015). Analisa Pertumbuhan Penjualan, Ukuran Perusahaan, Return On Asset, dan Struktur Modal Terhadap Nilai Perusahaan yang Tercatat di Indeks LQ45. *Jurnal Emba*, *3*(1), 961-971.

- Prasetia, T. d. E., Tommy, P., & Saerang, I. (2014). Struktur Modal, Ukuran Perusahaan Dan Risiko Perusahaan Terhadap Nilai Perusahaan Otomotif Yang Terdaftar Di BEI. Jurnal Emba, 2(2), 879-889.
- B. D., & Asandimitra, N. (2014). Pengaruh Profitabilitas, Ukuran Perusahaan, Growth Opportunity, Likuiditas, Struktur Aset, Resiko Bisnis dan Non Debt Tax Shield Terhadap Struktur Modal Pada Perusahaan Sub Sektor Barang Konsumsi. Jurnal Ilmu Manajemen, 2(4), 1341-1353.
- Pratama, I., & Wirawati, N. (2016). Pengaruh Struktur Modal Dan Profitabilitas Terhadap Nilai Perusahaan Dengan Kepemilikan Manajerial Sebagai Pemoderasi. E-Jurnal Akuntansi Universitas Udayana, 15(3), 1796-1825.
- Samosir, H. (2017). Pengaruh Profitabilitas dan Kebijakan Hutang Terhadap Nilai Perusahaan yang Terdaftar di Jakarta Islamic Index(JII). Journal of Business Studies, 2(1), 75-83.
- Santika, R. B., & Sudiyatno, B. (2011). Menentukan Struktur Modal Perusahaan Manufaktur di Bursa Efek Indonesia. Dinamika Keuangan dan Perbankan, 3(2), 172-182.
- Sari, D. H., Djazuli, A., & Aisjah, S. (2013). Determinan Struktur Modal dan Dampaknya terhadap Nilai Perusahaan (Studi pada Perusahaan Makanan dan Minuman di Bursa Efek Indonesia). Jurnal aplikasi Manajemen, 11(1), 77-84.
- Sawitri, N. P. Y. R., & Lestari, P. V. (2015). Pengaruh Risiko Bisnis, Ukuran Perusahaan, dan Pertumbuhan Penjualan Terhadap Struktur Modal. E-Jurnal Manajemen *Universitas Udayana*, 4(5), 1238-1251.
- Serrasqueiro, Z., & Caetano, A. (2015). Trade-off Theory Versus Pecking Order Theory: Capital Structure Decisions in a Peripheral Region of Portugal. Journal of Business Economics and Management, 16(2), 445-466.
- Sheikh, N. A., & Wang, Z. (2011). Determinants of Capital Structure An Empirical Study of Firms in Manufacturing Industry of Pakistan. Journal of Managerial Finance, 37(2), 117-133.
- Sofat, R., & Singh, S. (2016). Determinants of capital structure: an empirical study of manufacturing firms in India. International Journal of Law and Management, 59(6), 1029-1045.
- Stelk, S., Park, S.-H., Medcalfe, S., & Dugan, M. T. (2017). An additional analysis of estimation techniques for the degree of financial leverage. Review of Financial Economics. in Press.
- Sumani, S. (2015). Determinan Struktur Modal dan Nilai Perusahaan Pertambangan Pasca UU Nomor 4 Tahun 2009. Ekuitas: Jurnal Ekonomi dan Keuangan, 19(1), 24-41.
- Susanto, Y. K. (2011). Kepemilikan Saham, Kebijakan Dividen, Karakterisitik Perusahaan, Risiko Sistematis, Set Peluang Investasi dan Kebijakan Hutang. Jurnal Bisnis dan Akuntansi, 13(3), 195-210.
- Sutomo, S., Wahyudi, S., Rini Demi Pangestuti, I., & Muharam, H. (2019). Determinants of financing decision: empirical evidence on manufacturing firms in Indonesia. Investment Management and Financial Innovations, *16*(2), 159-170. doi:https://doi.org/10.21511/imfi.16(2).2019.14
- Utami, S. R. (2012). Determinants of Capital Structure of Firms in the Manufacturing Sector of Firms in Indonesia. (Doctoral Dissertation), Maastricht School of Management, Maastricht, Netherlands.
- Wijaya, E., & Jessica, J. (2018). Analisa Pengaruh Struktur Aktiva, Ukuran Perusahaan, Profitabilitas, Growth Opportunity, Tangibility, Business Risk dan Likuiditas Terhadap Struktur Modal Perusahaan pada Sektor Property & Real Estate yang

Terdaftar di Bursa Efek Indonesia Pada Tahun 2011-2015. *PROCURATIO (Jurnal Ilmiah Manajemen)*, 5(4), 440-451.

Zeitun, R., & Tian, G. G. (2014). Capital Structure and Corporate Performance: Evidence from Jordan. *Australasian Accounting Business & Finance Journal*, 1-36.