Analysis of the Factors Affecting the Capital Structure of a Manufacturing Company Listed on the Indonesian Stock Exchange in Moderation by Business Risk

*Puteri Anggi Lubis[1], Iskandar Muda[2], and Erlina[2]

[1]Department of Accounting, Faculty of Economics and Business, University of Sumatera Utara, Indonesia
[2]Department of Magister of Accounting, Faculty of Economics and Business, University of Sumatera Utara, Indonesia

Abstract: This study aims to examine and analyze the factors that affect the capital structure of manufacturing companies listed on the Indonesia Stock Exchange in moderation by business risk. The population of this study are all manufacturing companies listed on the BEI in the period of 2012-2016. 42 companies and simultaneously are used as a sample. The analysis of the data uses multiple linear regression with eviews 7software. The results showed that simultaneous factors of sales growth, profitability, corporate growth and firm size significantly influence the capital structurevariable. Company growth and firm size have positive but not significant effect on capital structure variable. Sales growth and profitability in moderation of business risks are significant to the capital structure. Company growth and firm size in moderation of business risk are insignificant to the capital structure.

1 INTRODUCTION

The capital structure has become one of the important consideration factors in corporate finance. The capital structure is strongly influenced by the development of the stock market. The existence of the stock market has given the company an opportunity to increase its funding sources.

The company's capital needs can basically be met from two sources, namely internal sources of the company and external sources. Internal sources of funds come from the company, namely Retained Earnings. Retained Earnings are part of net income after taxes that are not distributed to the owner of the company, or any other profits reinvested in the company. While the source of external funds is the source of funds coming from outside the company. External sources of funds can be debt and capital from the owner of the company. The owners' capital is obtained by issuing securities. With the issuance of securities, the public can invest in the company.

The characteristics of a company can influence the decision on the fulfillment of corporate resources (Ozkan, 2001). Krisnan and Moyer (Krisnan and Moyer,1996) in Omran (Omran,2009) studied capital structure in industrialized countries, whichdespite having similar economic characteristics, differed in determining the capital structure and the variables that influenced it. In the United States, Japan, Italy, and Germany, profitability, firm size and growth have proven to significantly affect the capital structure of those countries. In the United States, taxes are a significant determinant.

The above results are not much different from those of developing countries, such as India and Indonesia. Bhaduri (Bhaduri,2002) in his research in India found that the characteristics of companies such as growth, free cash flow, firm size, product type, and type of industry affect the company's capital structure. In Indonesia, Yulianti (Yulianti,2010) examines the significant variables on capital structure is the company's characteristics of profitability, liquidity, and size of the company.

The following will describe some of the reviews of previous research related to this research:

Herlina (Herlina,2014) who examined the Effect of Company Size, Profitability, Free Cash Flow Against Capital Structure at Manufacturing Companies in BEI. Dependent variable in this research is Capital Structure whereas independent variable is Company Size, Profitability and Free

Cash Flow with technique of Multiple Regression Model. The results concluded that all independent variables affect the capital structure.

Nugroho (Nugroho,2006) who examined the Analysis of Factors Affecting Capital Structure of Property Companies Go Public In JSE 1994-2004. Dependent variable in this research is Capital Structure while the independent variable is Operating leverage, Liquidity, Asset Structure, Growth, Price Earning Ratio, Profitability with Multiple Regression Model technique. The result of research concludes that Growth, and profitability have positive effect to capital structure while Operating Leverage, liquidity and STA have negative influence.

Saidi (Saidi,2004) who examined the Factors Affecting the Capital Structure of Manufacturing Companies Go Public in JSE 1997-2002. Dependent variable in this research is Capital Structure whereas independent variable is company size, business risk, asset growth, profitability and ownership structure with Multiple Regression technique. The result of this research concludes that firm size, asset growth, profiability and ownership structure have an effect on capital structure while business risk has no significant effect on capital structure.

Rachmawadani (Rachmawadani,2007) who studied about Analyzing the Influence of Liquidity Aspects, Business Risk, Profitability, and Sales Growth on Capital Structure. Dependent variable in this research is Capital Structure while the independent variable is liquidity aspect, business risk, profitability, and sales growth with Multiple Regression and Chow Test technique. The result of the research concludes that Liquidity, business risk, profitability, and sales growth have positive and significant effect to company's capital structure.

Taufan (Taufan,2009) who examined the Factors affecting capital structure in manufacturing companies listed on the Indonesia Stock Exchange period 2005-2007. Dependent variable in this study is the Capital Structure while the independent variables are business risk, firm size, asset structure and profitability with multiple regression techniques. The result of the research conclude that business risk and firm size have significant negative effect to capital structure while asset structure and profitability have positive and significant effect to capital structure.

Werner R. Murhadi, (Werner R. Murhadi,2009) who examined the Determinants of Capital Structure: A Study In Southeast Asia. Dependent variables in this study are Debt while the independent variables are Profitability, Company

Size, Asset Tangibility, Corporate Growth and Non Debt Tax Shield with multiple regression techniques. The results conclude that the factors that determine debt policy are profitability, firm size, asset tangibility and growth rate.

Ng Chin Huat (Ng Chin Huat,2008) who examined The Determinants Of Capital Structure: Evidence From Selected ASEAN Countries. Dependent variable in this research is Leverage while the independent variables are Profitability, Non Debt Tax Shield, Growth Opportunities, Firm Size, GDP, Inflation with multiple regression techniques. The results concluded that profitability and growth of inverse relationship with leverage while non-debt tax shield have a significant negative impact on leverage. The size of the company provides a significant positive relationship.

Gurcharan S, (Gurcharan S,2010) researched A Review of Optimal Capital Structure. Dependent variable in this research is Leverage while the independent variables are Size, Bank - Size Of Banking Industry, SKTMKT - Size Of Stock Market, GDPRATE - GDP Growth Rate, and INF - Annual Inflation Rate with multiple regression techniques. The results conclude that Profitability and growth opportunity show statistically significant with inverse relationship with leverage. While non-debt tax shield has a negative impact on leverage. Company size shows a positive relationship.

Sashi Kumar, Kanesan (Sashi Kumar, Kanesan, 2009) studied Decision Selected ASEAN Countries. Dependent variable in this research is Capital Structure while the independent variable is Asset Tangibility, Financial Flexibility, Liquidity, Profitability, Size, Growth Growth, Inflation Rate and Interest Rate with multiple regression technique. The results concluded that Asset Tangibility did not significantly affect the short-term debt ratio;

Masidonda (Masidonda,2013) examined the Determinants Of Capital Structure and Impact Capital Structure on Firm Value. Dependent variable in this study is the Capital Structure while the independent variable is CEO Ability, CEO of Ownership Corporate Value with multiple regression techniques. The results conclude that CEO's ability and CEO ownership determine the capital structure (LTDE), profitability and NDTS cash flow has no effect. Furthermore, CEO ability, profitability, NDTS and CEO ownership determine the capital structure (LTDA), but cash flow has no effect. The capital structure (LTDE and LTDA) determines the value of the firm.

The hypothesis in this study are as follows: Sales Growth, Profitability, Company Growth, Company

Size affect the Capital Structure moderated by Business Risks in Companies Registered on the Indonesia Stock Exchange.

2 METHODOLOGY

2.1 Research Design

The data used in this research are secondary data involving the financial statements of manufacturing companies listed in Indonesia Stock Exchange in period 2012 - 2016 for data analysis. Data were obtained from the website of Indonesia Stock Exchange (www.idx.co.id) and Indonesian Capital Market Directory (ICMD). Eviews 7Software was used.

2.2 Population and Sample

The population used in this study is a manufacturing company listed on the Indonesia Stock Exchange in 2012 - 2016. The criteria that must be met by the sample in this study are as follows:

1. The company is listed on BEI in 2011 until 2015 and is not in the delisting process during the study period.
2. The Company publishes complete financial statements with no negative retained earnings during the 2011-2015 observation period.

2.3 Instrument

The instrument that is used to collect the data in this researchis documentation method. The type of data used in this study is secondary data, namely the company's annual financial statements that have been audited by independent auditors in all companies, fundamental data, closing price of shares during the period of 2012 to 2016. The data sources were obtained from the Indonesia Stock Exchange (www. idx.co.id) and Indonesia Capital Market Institute (www.ticmi.co.id) an educational institution that organizes education and training as well as the capital market profession certification exams.

2.4 Data Collection and Analysis

Data analysis Method performed in this study is multiple linear regression models. Data are processed using Eviews 7 software.

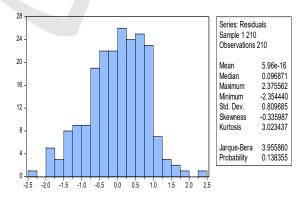Table 1: Methods Data analysis.

No	Criteria	Amount	Accumulation
1	Manufacturing company listed on the Stock Exchange in 2012-2016		141
2	Manufacturing companies that carry out 2012-2016 delisting from the IDX	(20)	121
3	Has a negative earnings balance during the observation period (2012-2016)	(69)	52
4	Does not publish financial statements in full	(10)	42
	Total sample companies during the study period		**42**

2.5 Data Normality Test

In this study, the normality test for residuals uses the Jarque-Bera (J-B) test. In this study, the level of significance used is $\alpha = 0.05$. The basis for decision-making is to look at the probability numbers of J-B statistics, with the following conditions.

If the probability value p is 0.05, then the assumption of normality is met.

If the probability is <0.05, then the assumption of normality is not met.

Figure 1: Test of Normality with Jarque-Bera Test.

Note that according to Figure 1, the probability value of J-B statistic is 0.138355. Because the probability value p, ie 0.138355, is greater than the level of significance, ie 0.05, the assumption of normality is met.

3 RESULT

3.1 Descriptive Statistics

Table 2: Descriptive Statistics Of Profitability, Corporate Growth, Company Size, Capital Structure, Sales Growth, and Business Risk.

Variable	Min	Max	Mean	Std.Deviation
Capital Structure	0.01581	5.29829	0.88068	0.81718
Sales Development	-0.94	0.901766	0.0453	0.2253
Profitability	-9.47785	0.90177	-0.08452	1.06487
Company Development	-6.91892	0.94804	0.07250	0.51490
Company Size	5.402	17.604	14.609	1.84031
Business Risk	-0.24754	1.03144	0.13724	0.16637

Source: Results of software Eviews 7

3.2 Classic Assumption Test

3.2.1 Multicollinearity Test

In this study, symptoms of multicolinearity can be seen from the correlation values between variables contained in the correlation matrix. (Ghozali, 2013, p.105) states if the inter-independent variables is a fairly high correlation, i.e. above 0.9, then the multico-linearityexists. Multicollinearity test results are presented in Table 3.

Table3: Multi co linearity Testwith Matrix Correlation.

	X1	X2	X3	X4
X1	1.000000	-0.139871	0.153375	0.500706
X2	-0.139871	1.000000	-0.004117	0.019434
X3	0.153375	-0.004117	1.000000	-0.046477
X4	0.500706	0.019434	-0.046477	1.000000

Source: Eviews 7 Software Results

3.2.2 Autocorrelation Test

Assumptions about residual independence (non-autocorrelation) can be tested using the Durbin-Watson test Field (Field, 2009, p. 220). The statistical value of the Durbin-Watson test ranges between 0 and 4. Field (Field, 2009, p. 220)states as follows.

The statistical value of the Durbin-Watson test that is smaller than 1 or greater than 3 indicates an autocorrelation.Field (Field, 2009, p.220-221) states as follows.

Table 4: Autocorrelation Test with Durbin-Watson Test.

Log likelihood	-253.1428	Hannan-Quinn criter.	2.490719
		Durbin-Watson stat	2.049199

Source: Software Eviews 7 Results

According to Table 3, the value of the Durbin-Watson statistic is 2.049199. Note that since the Durbin-Watson statistic value lies between 1 and 3, ie 1<2.049199<3, then non-autocorrelation assumptions are met. In other words, there are no symptoms of high autocorrelation in residuals.

3.2.3 Heteroscedasticity Test

Detection of the presence or absence of heteroskedastisitas can be done with Breusch-Pagan test Gujarati, Gio and Elly(Gujarati, 2003; Gio and Elly, 2015). The following test results Breusch-Pagan.

Tabel 5: Heteroskedasticity Test: Breusch-Pagan-Godfrey.

F-statistic	1.705653	Prob. F(4,205)	0.1500
Obs*R-squared	6.763906	Prob. Chi-Square(4)	0.1489

Source: Results of software Eviews 7

The value of Prob Obs * R-Squared is 0.1489> 0.05, which means there is no heteroscedasticity.

3.2.4 Test (F Test)

F test aims to examine the effect of independent variables simultaneously or simultaneously to the dependent variable. Based on Table 6, the value of Prob is known. (F-statistics),ie 0.0004585 <0,05, it can be concluded that all independent variableslike sales growth, profitability, corporate growth, and company size simultaneously, have a significant effect on capital structure variable.

3.2.5 The Panel Data Regression Equationand Partial Effect Significance Test (t Test)

Based on Table 6, we obtain the panel data regression equation as follows.

$$Y = 0{,}081 + 0{,}075X_1 + 0{,}111X_2 + 0{,}009X_3 + 0{,}033X_4 + e \quad (1)$$

Based on Table 6, it is known:
1. The coefficient value of independent variable of sales growth is 0,081, that is positive value. The value can be interpreted as variable of sales growth have positive effect to capital structure variable. It is known that the Prob value of the sales growth variable is 0.0161, ie <0.05, then the sales growth variables have a significant (statistically) effect on the capital structure variable, at the 5% significance level.
2. The coefficient value of the profitability free variable is 0.111, which is positive. The value can be interpreted profitability variables which have a positive effect on capital structure variable. It is known that Prob value of profitability variable is 0,0013, that is <0,05, profitability variable has significant effect (statistically) to capital structure variable, at 5% significance level.
3. The coefficient value of the growth-free variable is 0.009, which is positive. The value can be interpreted by company growth variable have positive effect to capital structure variable. The value of Prob of the variable growth of the firm is 0.8384, that is> 0.05, then the variable of company growth has no significant effect (statistically) on the variable of capital structure, at the 5% significance level.
4. The coefficient value of the independent variable of firm size is 0.033 is positive. The value can be interpreted firm size variables have a positive effect on capital structure variables. It is known that Prob value of firm size variable is 0,2646, that is> 0,05, hence firm size variable has no significant effect (statistically) to capital structure variable, at 5% significance level.

3.2.6 Moderation Significance Test

The following test results of business risk significance in moderating the influence of sales growth, profitability, corporate growth, and firm size on capital structure using interaction test.

Table 7: Test of Business Risk Significance in Moderating The influence of sales growth on capital structure.

Dependent Variable: Y
Method: Least Squares
Date: 01/24/18   Time: 22:19
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	-0.003484	0.049758	-0.070017	0.9442
Z	-0.084347	0.054707	-1.541801	0.1247
INTERACTION_ZX1	-0.037828	0.017999	-2.101654	0.0368
C	-0.452432	0.139876	-3.234515	0.0014

Source: Results of Eviews 7software

Based on Table 7, we obtain the moderation equation of interaction test as follows.

$$Y = -0.45 - 0{,}0034X\_1 - 0{,}0843Z - 0{,}037X\_1 Z \quad (2)$$

The value of Prob of the interaction_ZX1 is 0.0368 <0.05, then the business risk is significant in moderating the effect of sales growth on the capital structure.

Table 8: Test of Business Risk Significance in Moderating Effect of profitability on capital structure.

Dependent Variable: Y
Method: Least Squares
Date: 01/24/18   Time: 22:22
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X2	0.308515	0.089385	3.451538	0.0007
Z	0.170551	0.064766	2.633333	0.0091
INTERACTION_ZX2	0.070242	0.028105	2.499299	0.0132
C	0.308264	0.219250	1.405992	0.1612

Source: Results of software Eviews 7

Based on Table 8, we obtain the moderation equation of interaction test as follows.

$$Y = 0{,}3082 + 0{,}3085X\_2 + 0{,}1705Z + 0{,}0702X\_2 Z \quad (3)$$

The value of Prob of interaction_ZX2 is 0.0132 <0.05, then the business risk is significant in

moderating the effect of profitability on the capital structure.

Table 9: Test of Business Risk Significance in Moderating Influence of company growth on growth of capital structure.

Dependent Variable: Y
Method: Least Squares
Date: 01/24/18 Time: 22:23
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X3	0.103922	0.100717	1.031817	0.3034
Z	0.082189	0.074373	1.105091	0.2704
INTERACTION_ZX3	0.026273	0.028402	0.925066	0.3560
C	-0.141654	0.246257	-0.575227	0.5658

Source: Results of software Eviews 7

Based on Table 9, we obtain the moderation equation of interaction test as follows.

$$Y = -0.141 + 0.1039X\_3 + 0,0821Z + 0,0262X\_3 \ Z \quad (4)$$

The probability of Prob value of interaction_ZX3 is 0.3560> 0.05, then business risk is not significant in moderating the influence of firm growth on capital structure.

Table 10: Test of Business Risk Significance in Moderating The influence of firm size on capital structure.

Dependent Variable: Y
Method: Least Squares
Date: 01/24/18 Time: 22:23
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X4	0.083723	0.041797	2.003085	0.0465
Z	0.024084	0.048024	0.501498	0.6166
INTERACTION_ZX4	0.004211	0.015460	0.272354	0.7856
C	-0.227974	0.132378	-1.722146	0.0865

Source: Results of software Eviews 7

Based on Table 10, we obtain the moderation equation of interaction test as follows.

$$Y = -0,227 + 0,083X\_4 + 0,024Z + 0,004X\_4 \ Z \quad (5)$$

The probability of Prob value of interaction_ZX4 is 0.7586> 0.05, then business risk is not significant in moderating the effect of firm size on capital structure.

4 ANALYSIS

4.1 Effect of Sales Growth on Capital Structure

The coefficient value of the free variable of sales growth is 0.076 is positive to the variable of capital structure. Known value Prob of variable sales growth is 0,0150, that is <0,05, hence variable of sales growth have significant effect to capital structure variable.

This research is supported by Ni Made Novione and Made Rusmala (Ni Made Novione and Made Rusmala,2016) who state that sales growth has a positive and significant effect on capital structure. Sales growth will affect changes in capital structure. This positive value of the coefficient regression indicates that the increased sales growth will be followed by increased capital structure and vice versa. And the research of Rahmawardani (Rahmawardani,2007) states that Sales growth has a positive and significant effect.

4.2 Effect of Profitability on Capital Structure

The coefficient value of the profitability free variable is 0.121 is positive to the capital structure variable. Known Prob value of the profitability variable is 0.0034, ie <0.05, then the profitability variable significantly influence the variable of capital structure.

The research supported by Seftianne (Seftianne,2011) and Rahmawardani (Rahmawardani,2007) get profitability result which have a significant positive effect to capital structure. The results showed that the higher the profitability of the company, the higher the capital structure is. Profitability positively affects the capital structure because the company does an expansion that it requires a lot of funds to encourage increased profits in the future.

4.3 Effect of Corporate Growth on Capital Structure

The coefficient value of the growth-free variable of firm is 0,009.This is positive value of capital structure variable. Known Prob value of variable growth of company is 0,8384, that is> 0,05, hence variable growth of company have no significant effect to variable of capital structure.

The research supported by Liem et al (Liem et al.2013) obtained the result of growth which has no significant positive effect on capital structure. The results of this study do not support the results of research conducted by Wahidahwati (Wahidahwati,2002) which shows that the growth of the company proved to negatively affect the capital structure.

4.4 Effect of Company Size on Capital Structure

The coefficient value of the independent variable of firm size is 0,036 is positive value to capital structure variable. Known Prob value of variable size of company is 0,2365, that is> 0,05, hence firm size variables have no significant effect to capital structure variable.

This shows that the size of a large company does not guarantee the survival of the company or the smooth operation of the company. Thus the size of the company does not guarantee the interest of investors or creditors in investing funds to the company. The results support the research conducted by Firnanti (Firnanti,2010) and Hapsari (Hapsari,2010), but they are different from research conducted by Sari (Sari,2013) and Finky (Finky,2013) which states that firm size variables have positive and significant influence on capital structure.

4.5 The Influence of Business Risk as Moderating Variableof Variable Structure of Capital

From the results of the tests conducted can be seen that the business risk variables used as moderating variables show significant when it is used with the growth of sales and profitability. The results are not significantly indicated on the use of company growth and firm size. Firms with high risk levels tend to avoid additional funding through foreign capital compared to firms with low risk levels. It will also increase the likelihood of bankruptcy.

5 CONCLUSIONS

5.1 Conclusion

This study was conducted to examine whether sales growth, profitability, corporate growth and firm size, affect the capital structure listed on the Indonesia Stock Exchange moderated by business risk. The sample of research is 42 companies listed on BEI during period 2012-2016.

Based on the result of research, it can be concluded that:
1. All independent variables: sales growth, profitability, company growth, and company size, able to influence/ explain the structure of capital simultaneously or together equal to 7.7%, the rest of 92.3% influenced by other factors.
2. All independent variables: sales growth, profitability, corporate growth, and company size, simultaneously, have a significant effect on capital structure variables.
3. Sales growth has a positive and significant effect on capital structure variable.
4. Profitability has positive and significant effect on capital structure variable.
5. The growth of the company has a positive, but not significant effect on the variable of capital structure.
6. The size of the company has a positive, but not significant effect on the sales growth variable.
7. Business risk is able to moderate the effect of sales growth on capital structure.
8. Business risk is able to moderate the effect of profitability on capital structure.
9. Business risk is not able to moderate the influence of corporate growth on capital structure.
10. Business risk is not able to moderate the effect of firm size on capital structure

5.2 Limitations of Research

Limitations of this study are the sample of this study which are only taken from manufacturing companies listed on the Indonesia Stock Exchange (BEI) 5-year period of 2012 - 2016. This causes the results of the study which cannot be generalized to other types of companies listed on the Indonesia Stock Exchange.

REFERENCES

Bhaduri. 2002.*The Characteristics of CompaniesSuch as Growth, FreeCash Flow, FirmSize, ProductType, and Type of IndustryAffect the Company'sCapitalStructure. India*

Brigham, E.F dan Gapenski, Louis C. 1996. *Intermediate Finance Management*. Harbor Drive : The Dryden Press.

Brigham Eugine F. dan Joel F. Huston 2006. *Dasar-Dasar Manajemen Keuangan*. Jakarta: Penerbit Salemba Empat.

Field. 2009. *Autocorrelationstatistical value of the Durbin-Watson*. 220.

Field. 2009. *Autocorrelation statistical value of the Durbin-Watson*. 220-221.

Ghozali. 2013. *Correlation Matrix*. 105.

Gujarati, Damodar N. 2003. Gio and Elly, 2015. *Ekonometrika Dasar*. Jakarta : Penerbit Erlangga.

Gurcharan S. 2010. A Review of Optimal Capital Structure Determinant Of. *Journal Economic*

Hapsari, Laksmi Indri. 2010. AnalisisFaktor-Faktor Yang Mempengaruhi Struktur Modal Perusahaan Manufaktur Di Bursa Efek Indonesia Periode 2006-2008 Studi Kasus Pada Sektor Automotive And Allied Product. *Skripsi:* Universitas Diponegoro Semarang.

Indahningrum, Rizka Putri dan Ratih Handayani. 2009. Pengaruh Ukuran Perusahaan, Kepemilikan Institusional, Dividen, Pertumbuhan Perusahaan, Free Cash Flow dan Profitabilitas Terhadap Kebijakan Utang Perusahaan. *Jurnal Bisnis dan Akuntansi.* Vol 11, No. 3. Hlm 189-207.

Jensen, M. Dan W.H. Meckling. 1976, Theory of the firm: Managerial Bihavior, Agency Cost and Ownership Structure. *Jurnal of Financial Economic.*No. 3. Hlm. 305-360.

Liem, dkk. 2013 Faktor-Faktor yang Mempengaruhi Struktur Modal Kerja pada Industri *Cunsomer Goods* yang Terdaftar di BEI periode 2007-2011. *Jurnal Ekonomi dan Bisnis.*

Masidonda. 2013. *Determinants Of Capital Structure and Impact Capital Structure on Firm Value. Journal Business and Economics*

Myers, Steward, C. Dan Nicholas S. Majluf. 1984. Corporate Financing Decision When Firm Have Investment Information That Investor Do Not. *Journal of Financial Economics.* Vol. 13, hlm. 187-220.

Ng Chin Huat. 2008. *The Determinants Of Capital Structure: Evidence From Selected ASEAN Countries. Journal Business and Economic.*

Nugroho. 2006. Analisis Faktor-Faktor yang Mempengaruhi Struktur Modal Perusahaan Property yang *Go Public* Di BEJ Tahun 1994-2004. *Jurnal Ekonomi dan Bisnis.*

Ozkan, 2001. Krisnan and Moyer. 1996. in Omran. 2009. CapitalStructure in IndustrializedCountrieswhich, DespiteHavingSimilarEconomicCharacteristics, Differed in Determining the CapitalStructure and the Variables that Influenced it. In the United States, Japan, Italy, and Germany.*United States.*

Rahmawardani. 2007. Menganalisis Pengaruh Aspek Likuiditas, Risiko Bisnis, Profitabilitas, dan Pertumbuhan Penjualan Terhadap Struktur Modal. *Jurnal Ekonomi dan Bisnis.*

Saidi. 2004. Faktor-Faktor yang MempengaruhiStrukturModalpada Perusahaan Manufaktur yang *Go Public*di BEJ Tahun 1997-2002. *Jurnal Ekonomi dan Bisnis.*

Salehi, Mahdi., Nazanin Bashiri Manesh. 2012. *A Study Of The Roles Of Firm And Country On Specific Determinates In Capital Structure: Iranian Evidence. Interntional Management Review.* 8 (2): 51-85.

Sugiyono. 2012. *Metodologi Penelitian Bisnis.* Bandung: Alfabeta.

Taufan. 2009. Faktor-faktor yang MempengaruhiStrukturModal pada PerusahaanManufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2005-2007. *Skripsi.*

Wahidahwati.2002.Pengaruh Kepemilikan Manajerial dan Kepemilikian Institusional pada Kebijakan Hutang Perusahaan: Sebuah Perspektif Theory Agency. *The Indonesian Journal of Accounting Research* 5 (1).

Werner R, Murhadi. 2009. *Determinants of Capital Structure: A Study In Southeast Asia.*

Yulianti.2010. Capital Structure is the Company's Characteristics of Profitability, Liquidity, and Size of the Company. *Jurnal Bisnis Dan Akuntansi.*

www.idx.co.id
www.ticmi.co.id