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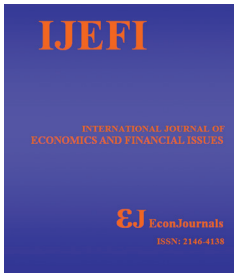

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The Role of Business Risk and Non Debt Tax Shields to Debt to Equity Ratio on Pharmacy Listed Companies in Indonesia

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ABSTRACT

The purpose of this study was to analyze the effect of interest earned time and business risk effect on debt to equity ratio (DER) and to determine the role of non debt tax shields (NDTSs) moderate the relationship between time interests earned and business risk on capital structure. There are 12 companies of pharmaceutical industries in Indonesia and the ones that meet the requirements are only nine pharmaceutical industries. The data are analyzed and interpreted using the analysis tool of structure equation modeling (SEM) with WarpPLS 5.0. Program is Variance or component based SEM is used to analyze hypotheses. The study concluded that time interest earned and interest earned time interaction with tax debt non shields no significant effect on DER and to variable business risk and business risk interactions with NDTSs significant effect on DER. The results of this study are NDTSs strengthen the relationship between the business risk of the DER which correspond to trade off theory, where the company made tax savings by using additional debt invested on fixed assets when the level of business risk is low and does not use additional debt when the company's business is high risk.

Keywords: Debt to Equity Ratio, Time Interest Earned, Business Risk, Non Debt Tax Shields
JEL Classifications: G31, H25, H63

1. INTRODUCTION

The Government of Indonesia has assigned an obligation to all citizens to be the member of BPJS/Social Health Insurance. The application to this policy is stated in the President Regulation No. 111 2013 and The Minister of Health Regulation No. 28 2014 on Health Service on the National Health Insurance and also BPJS Regulation No. 1 2014. To accelerate and succeed this Government Program on the implementation of Indonesian Citizen Health Insurance, the government issues a penalty with the implication to the handling of the extension of ID card, driving license, passport and business permit to the business practitioners or personal. With this government policy, all citizens of Indonesia are given privileges in treating their health by visiting the health facilities and hospitals that become their medication destination. With this condition, the business opportunity for pharmacy industry in Indonesia is open widely since the needs of medicine production and consumption will increase. The company needs fund to pay for their company operational activities, investment, moreover, to the fixed asset or other interest.

Important decision faced by the finance manager related to the continuation of the operation is the decision of funding. Company will be funded by debt and equity. The composition of debt and equity used is described on the capital structure. Ampenberger et al. (2013) among the three dimensions of a family firm, management board involvement by the founding family has a consistently negative influence on leverage across all our models. In contrast, the influence of ownership and supervisory board representation is insignificant in almost all of our models. Finally, we detect that the presence of a founder CEO in firm management has a significant negative effect on the leverage ratio. Our results prove to be stable against a battery of robustness tests. Conservative financial structure means company must not have debt more than its own capital. Moreover, the determination of capital structure of a company needs to consider some variables influence.

The sources of capital structure are long term debt, short term debt, preferred stock, common stock, earned surplus. Gordon (2010) states that tax makes the use of company debt and increase the company profit and prevent non tax expense is debt funding

an balancing profit from tax debt. The inconsistency of the study result on determinant toward the capital structure is described in some studies below; De Jong et al. (2008) found that the nation specific factor influences company leverage. Huang (2006) tests the capital structure characteristics.

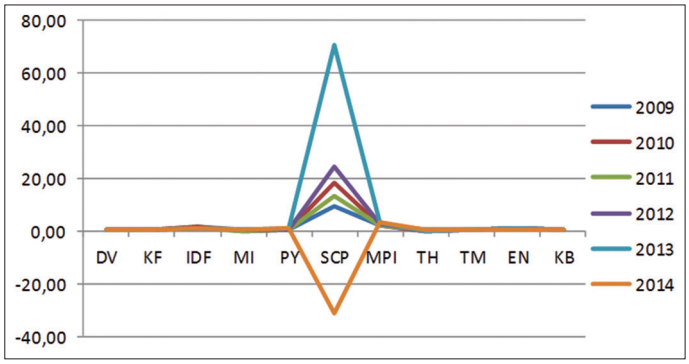
The result of the study shows that the leverage of Chinese company is relatively lower and tends to consider the tax influence in funding long term debt. Akhtar and Oliver (2009), in the multinational company in Japan has study result that proves the multinational capital structure has significant influence to domestic company. Trinh and Phuong (2015), The empirical result indicates that firm size, profitability, and tangibility have statistically significant impacts on capital structure. The growth is not statistically significant in explaining the variance of the leverage. The study result also reveals that capital structure of Vietnamese listed firms has not changed significantly under the financial crisis.

The relationship in between return on assets (ROAs) and time interest earned (TIE) is positive as well as significant. However, debt to equity ratio (DER) and LTDA have negative but insignificant influence on ROA (Riaz). The research of Nassar (2016) return on equity and earning per share as well as debt ratio (DR) as capital structure variable. The results show that there is a negative significant relationship between capital structure and firm performance. The capital structure development represented from the debt to total equity ratio on the pharmaceutical industry registered in the stock exchange market of Indonesia from 2009 to 2014, can be seen in the Figure 1.

Based on the Figure 1, there is a fact that the capital structure of pharmaceutical industry company registered in the Indonesia Stock Exchange during the period of 2009-2014 has a rising and falling time. The fluctuated DER reflects capital structure so the need of fund from debt in the pharmaceutical industry fluctuated. In the year 2009, the average capital structure of pharmaceutical industry company was about 1.51 and had a rising time in 2010 for about 2.25. In 2011 it had a fall about 1.80 and in 2012 rose to 2.88, 2013 about 7.20 and has a drop again with the negative position about −2.07 in 2014.

Brigham and Ehrhardt (2013) the phenomenon above proves that the capital structure is important in managing company financial that needs more analysis from various point of views. The factors

Figure 1: The development of debt to equity ratio pharmaceutical industry company 2009-2014



that can influence the composition of company capital structure are sale stability, asset structure, operation leverage, level of growth and profitability, tax, control, management behavior, lender behavior and the ranker agent, market condition, internal condition of the company flexibility financial. The difference between the previous study and this study beside the fundamental factor TIE and business risk also involved as a moderate on the capital structured proxy by debt to total equity, in 6 years of research time with the pharmaceutical industry field as the research object.

The purpose of this study is to analyze the influence of TIE and business risk influences the DER and to know the role of non debt tax shields (NDTSs) moderating the relation between time interests earned and business risk to DER. The contribution of this study is the level of ability of a high TIE of the company does not have an addition in debt even though there is a saving in tax occurred on the fixed asset. Non debt tax fields strengthen the relation between business risk to DER that suits trade off theory, where the company has the saving in tax by using additional debt invested on fixed asset in the low business risk and does not use additional debt when the company's condition is in a high business risk.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Trade off Theory

One of the important issues faced by the finance manager is the relation between capital structure and company value. So, the decision of fund sources used to strengthen the capital structure of a company cannot be seen as a simple decision, but it has a strong implication to what will happen in the future. According to Miller (1963) company capital structure beside being influenced by tax of the corporate income tax is also influenced by personal income tax. Trade off theory stated by Marcus (2006), "Company will owe to a certain debt level where tax saving (tax shields) from extra debt as same as financial difficulty expense (financial distress)." Financial distress is bankruptcy cost or reorganization, and agency costs that increases caused by the decreased credibility of a company. Trade off theory has implication that the manager will think in the trade off framework between tax shields and financial distress in determining capital structure.

The companies with the high profitability level surely will try to minimize their tax by increasing the DR so that the additional debt will minimize the tax. In reality, there are few finance managers that think so. According to Brigham and Ehrhardt (2013) trade off theory is a theory where company exchanges the benefit of tax from debt funding with the problem that occurs because of bankruptcy potency. Tax load can be minimized by interest; this minimizing is more valuable to the company with a high tax. The higher tax expense of a company, the more benefit from debt it has. Salawu and Agboola (2008) with the study result shows that profitability, tangibility and company size have positive relationship with the total amount of long term debt and the opportunity of negative company growth relates with the total amount of debt. Empirical result shows that the decision of funding from big company like that in Indonesia and Nigeria can be explained by the determinant factors suggested by the trade off theory.

2.2. Signaling Theory

According to Melewar (2008), signal theory shows that company will give signal through action and communication. Brigham and Ehrhardt (2013) state that signaling theory is an action taken by the management of a company that gives a clue to the investor on how the management sees company prospect. Company with beneficial prospect will try to avoid stock sale and try any new capital needed by other ways, including debt use.

The concept of signal was firstly learned in the job context and market product by Akerlof and Arrow and it is developed to be the balance of signaling theory with Spence (1973), states that a good company can be distinguished from the bad one by sending signal on product quality to the capital market. This study result shows that farming business does not only follow the pecking order theory but also the signaling theory. Besides, not like the companies which have high leverage as the funding, farming business depends on its big size and the good history record to facilitate the funding investment (Zhao et al., 2004).

Signaling theory is first developed by Ross (1977), that stated when a company issues a new debt, it gives sign to the potential investor on the company prospect in the future that will increase. Adding debt means the limitation of cash flow and the financial expenses also increases, and the managers will only issue more debt if they are sure that eventually the company will be able to fulfill their responsibilities. Company executive party that has better information on the company will be exposed to give the information to the prospective investor so that the company's stock will be increase. The essence of this signaling theory is trying to convince the stakeholders on the value of the company. Investor will be able to identify the company with good or bad value, one of the ways is by its funding. Signaling theory is the step of the company management that actually gives implicit clue to the investor on how the investor sees the company prospect. The asymmetric information between the management and investor to get the signal from the company is important for getting the financial resource.

2.3. The Relation between TIE with DER

Sawir (2008) said that the ratio is also called by a coverage ratio that measures the fulfillment of an obligation with annual interest with operating profit (EBIT) and measuring the extent to which operating profit may get down without causing the failure of the fulfillment of an obligation to pay interest on the loan. TIE can be used to see the ability of companies pay interest and debt. If using comparison more than one period, times hence the value of the interest earned below 1.5 so it is not safe, hence not safe because if the ratio worth hence 1.00 then EBIT got by the company will only be enough to pay interest.

Company plan meeting the needs of funds is strongly influenced by interest rates and selection of the kind of capital that would be drawn a company that issue of stocks and obligation. NDTSs cause thrift tax not derived from the use of debt, can be used as capital to reduce debt as the reduction factors or protection taxes besides debt that is of the depreciation. So the larger depreciation, the more thrift income tax and cash flow company. Song (2005) NDTSs no correlation with the total debts and significant where total debts decomposed a debt short and long term. There are significant differences between the DR short and long term; while the NDTSs has positive effects on ratios short term debt and negatively correlated for the long term debt NDTSs cause thrift tax not derived from the use of debt, can be used as capital to reduce debt. It is formodifying factors or protection taxes besides debt that is of the depreciation. So the larger depreciation, the more thrift income tax and cash flow company. As N NDTSs will affect leverage, that NDTSs is a substitute for tax benefits the amount of funds for long term debt for depreciation; as companies involved in tax protection.

This research has to test the ability of NDTSs in strengthen and weaken the relation between TIE and business risk to DER. Based on the explanation above, the hypotheses is as follows:
H_1: TIE influences positively to DER.
H_{1a}: NDTSs moderates the relation between TIE and DER.

2.4. The Relation between TIE, Business Risk and NDTSs to DER

Business risk is an uncertainty faced by the company in running its company. A good company will try to balance the financial condition to the use of debt or other funding. The study related to determination on capital structure, especially the one uses moderation variable done by some researchers, one of those are Jaggi and Gul (1999) with the variable of moderation company size. Kolay et al. (2011) studied the relation between non debt (NDTS) and Graham (2000) tax debt by using proxy NDTS called "tax spread" measured by the difference between tax cost and paid tax and there is positive and significant relation between leverage and NDTS size, concluded that company has debts alternate to reduce tax income.

Barakat and Rao (2012) implication from the theory with capital structure based documents relatively higher leverage in the country that has institution income tax, which the leverage is positive significantly for company marginal tax cost. Besides, findings that NDTS influence positively and significantly to the capital structure in non tax economy, but it is not significant in economy with tax. Moreover, finding that leverage systematically relates to the size, warranty and profitability. Based on the explanation above, then the second hypotheses offered:
H_2: Business risk influences to DER.
H_{2b}: NDTS moderates the relation between business risk and DER.

3. STUDY DESIGN

3.1. Population and Sample

Study population is financial information data of pharmaceutical company in Indonesia during the period of 2009-2014 with 72 companies. Sampling technique used is purposive sampling based on the criterion: (1) Pharmaceutical industry company is always registered in BEI in period of 2009-2014; and (2) pharmaceutical industrial company that has debt and financial cost/interest in funding the operational activities in 2009-2014. Based on the criterion, there are 49 companies that become the study samples.

3.2. Variables Measurement

Variables of the study illustrated in below, which was designed by the researcher.

3.2.1. DER

While according to Kasmir (2012) DER is a ratio used to measure debt with equity. DER is included in the solvability/leverage group, counting how big the company asset that is funded by debt or how far the company debt can influence the asset management. Nor et al. (2012) gives idea that company trade off expense is not useful to decrease optimum DR. From the point of view of funding, this study found that managers in Malaysia assumed the internal fund usage to pay for the projects as the most important source of funding. This study enriches the literature by finding how far capital structure theory can explain the behavior of funding practice of the managers in Malaysia.

Based on the statement above, it can be concluded that DER is used by a company not only to pay for the assets, capital and expenses but also to increase the income. The higher DER shows the total composition of debt is bigger than its own total capital so that it results more burden to the creditor. DER formula Kasmir (2012), as follow:

$$\text{Debt to equity ratio} = \frac{\text{Total of debt}}{\text{Total of capital}}$$

3.2.2. NDTSs

NDTSs are the charging on depreciation and amortization expenses toward profit and loss. Depreciation and amortization are cash flow as the capital sources from the inside of the company so that it can decrease the funding from debt. Princen (2012) stated that there is a difference to measure on how debt tax shield influences company capital structure by comparing the leverage of company finance before and after the introduction of equity tax shield. Being consistent with the theoretical prediction, where the estimation result shows that equity tax shield introduction has negative effect that is significant to the company finance leverage. This effect is about 2-7% which means that classic tax system makes the company to use debt approximately more than 2-7% when there is tax debt and equity consideration.

According to Bradley et al. (1984) NDTSs is in form of fixed asset depreciation. Therefore, company which has high fixed assets will get more tax profit like the reduction expense that can be subtracted from the calculation of debt tax. Tax profit in form of depreciation/ reduction that can be reduced in determining the income after tax is named NDTS. Dwenger and Steiner (2014) found significant positive effect and relatively bigger than the company leverage tax charge: Average tax charge increase of 10% will increase finance leverage of 5% and found that DR is less responsive for small companies and for the company to get profit from various forms of tax shield, certain reduction and fiscal loss that can be compensated. However, the influence of tax, apparently, does not depend on the risk even though the economy risk level does not influence the company leverage.

Mackie-Mason (1990) divided NDTSs into two groups, that are: (a) Tax loss carry forward, a facility in form of loss that can be compensated to profit of mostly 5 years forward and (b) investment tax credit, a facility given by the government that are reduction of tax shield, tax cancelation, and tax exemption. Bradley et al. (1984) NDTSs is a form of fixed asset depreciation. Company which has high number of fixed assets will get more tax profit such as depreciation. The reduction of expense that can be subtracted in counting the amount of debt tax. Tax profit in form of depreciation/ reduction that can be reduced in determining income with tax is named NDTSs is as follow:

$$\text{Non debt tax shields} = \frac{\text{Total depresiasi}}{\text{Total asset}}$$

3.2.3. TIE

TIE is a comparison between net profit before interest and tax with the interest expense and it is a ratio that reflects the amount of financial warranty to pay for long term debt interest. TIE is a solvability/leverage ratio. Sawir (2008) states that this ratio is also called coverage ratio that determines the ability to complete the obligation of annual interest with operation profit (EBIT) and measures how far the operation profit may decrease without making failure from the completion of loan interest payment.

Times Interest Earned can be used to see the ability of the company in paying interest and debt. If using the comparison more than one period, the value of timed interest earned higher will be better, which means if EBIT owe by the company is higher than interest expense that must be paid, so the company have been able to cover interest cost with EBIT it has. Generally, if the value of times interest earned is below 1.5, then it is not safe since if the ratio is 1.00, then EBIT earned by the company is only enough to pay the interest. The formula of TIE according to Kasmir (2012) is as follow:

$$\text{TIE} = \frac{\text{EBIT}}{\text{Internet cost}}$$

3.2.4. Business risk

Business risk consists of intrinsic business risk, financial leverage risk, and operating leverage risk. When a project with the big investment failed, his failure could cause company become bankrupt, while small investment has little risk of this means not too much operational disrupted company as a whole. Sahudin et al. (2011) the estimation results of business risk shows that the size of the company construction has a positive relationship strongly significant for company leverage. This finding is consistent with the findings previously that the size of the company increase information that is large in clarifying the debt. The results of the study also found that company leverage is positively influenced by the reputation of the company.

Cash flow investment; whether the company will receive investment projects with 24% return for 2 years or profitable 20% for 4 years. When risk of replanting the first major projects, then projects the 20% be given higher priority. Deviation is from cash flow. When acceptance cash flow is greater and the risks are also massive, so the risk cash flow small faced is also small. Business risk in this research is measured by deviation standard having the σ (sigma), that the measurement of risk done have value that was surely with number the distribution of density probability. The

more decrease deviations standard so the lower the business risk. The formula of business risk according to Brigham and Houston (2011) is as follow:

$$\text{Resiko bisnis} = \sigma \frac{\text{EBIT}}{\text{Total asset}}$$

4. DATA ANALYSIS TECHNIQUE AND EMPIRICAL MODEL

The collecting data method used is especially by documentary study way from idx.co.id. The data used is secondary data resulted from the financial report of the pharmaceutical industrial company. Data analysis using the descriptive statistical technique and hypotheses test in this study uses WarpPLS 5.0 program. This study uses analysis tool structure equation modeling (SEM)-partial least squares with the Program WarpPLS 5.0 that is Variance or component based SEM (WarpPLS) uses to test hypotheses. This tool is chosen because it has some strengths that are it is designed to be able to solve the problem like small sample numbers, data does not normally distributed multi variatively, there is missing value and there is multi colloniarity inter oxygen variables (Kock, 2015; Latan, 2013). The diagram pattern is in the equation. Based on the hypotheses development above, it can be applied the study model as follow:

$$Y = \beta_0 + \beta_1 TIE + \beta_2 BRISK + \beta_3 TIE * NDTS + \beta_4 BRISK * NDTS + \varepsilon$$

Notation:

Y = Debt to equity ratio, β_0 = Constant, β_1–β_4 = Coefficient and ε = Error, TIE = Time interest earned, BRISK = Business risk, NDTS = Non debt tax shields, TIE*NDTS = empowerment between TIE with NDTS, BRISK*NDTS = Empowerment between business risk with NDTSs.

4.1. Statistical Result

Table 1 showed that TIE has deviation standard about 169.05240 with the lowest point in this study about 0.53 that means the company has profit income less than one compared with the interest cost must be paid and maximum point of 698.56 (PT. Merck) which means the ability level of the company in getting profit is very big. For a mean point about 91.0467, it means the skill average of the pharmaceutical industry in completing its interest cost is still above the limit of the financial cost. Business risk (BRISK) has deviation standard about 0.32699 with minimum point 0.05. (PT. Kalbe Farma), which means the company has the smallest business risk and the highest business risk about 1.13. (PT. Schering Plouterseutg) that means the company has risk level that needs special attention where deviation standard from the business risk has reached more than the mean 0.283.

NDTSs has deviation standard about 0.1437, with mean 0.0224 with the maximum point of 0.06 (PT. Merk), which means the company has investment level on fixed asset in a big number compared with other company. DER has deviation standard about 2.86138 with the lowest point in the research data of 0.18 (PT. Merk) which means the company has used the operational fund more than its own capital, the maximum point is 1.3553, meaning the average pharmaceutical companies in dealing its business uses fund from debt, in the limit more than 100% of its own capital.

4.2. Test of Hypotheses and Full Model

Figure 2 and Table 2 showed that line coefficient and the p value of each direct effect, moderating effect, total effect and effect size in the study model. The moderating line of NDTS on the relation of TIE and DER shows coefficient point of 0.00 is not significant with value P > 0.05. The line of TIE → DER shows coefficient point of 0.03 and it is not significant with the value of P > 0.05. The line of BRISK → DER shows the coefficient point of 0.49 and significant with P < 0.01.

The test result of full model study with WarpPLS 4.0 is showed in Figure 2. Based on the output model fit and quality indices model has value of average path coefficient (APC) = 0.146, P = 0.031, average R-squared (ARS) = 0.219, P = 0.006, average adjusted R-squared = 0.156, P = 0.026, average block variance inflation factor (AVIF) = 1.414, acceptable if ≤5, ideally ≤3.3, average full collinearity VIF (AFVIF) = 3.860, acceptable if ≤5, ideally ≤3.3, (GoF) = 0.468, small ≥0.1, medium ≥0.25, large ≥0.36. The condition on WarpPLS states that value P for APC and ARS must be smaller than 0.05 (significant). The value of AVIF and AFVIF as the multi collonearity indicator must be smaller than 5 and the condition for the value of GoF is small ≥0.1, medium ≥0.25, large ≥0.36. Referring to the conditions, it can be concluded that the study model is fit, as follow:

Table 3 presents R^2, Q^2 and full collinearity VIF. R^2 can be used to explain the influence of exogenous variable to endogen variable whether it has substantive influence. Q^2 is used to know whether the model has predictive relevance while the value of Q^2 >0 shows

Table 1: Descriptive statistical result

???	N	Minimum	Maximum	Average	Standard deviation
TIE	49	0.53	698.156	91.04	169.05240
BRISK	49	0.05	1.13	0.283	0.32699
ND	49	0.00	0.06	0.022	0.01437
DE	49	0.18	18.28	1.355	2.86138

TIE: Time interest earned, BRISK: Business risk, ND: Non debt, DE: Debt to equity

Figure 2: Full model test

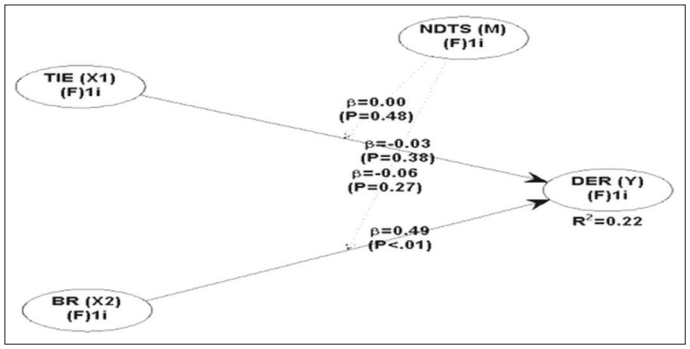


Table 2: Model fit and quality indices, path coefficients and P values, indirect, total effects, effect size-full model

Model fit and quality indices		
APC=0.146, P=0.031		
ARS=0.219, P=0.006		
AARS=0.156, P=0.026		
AVIF=1.414, acceptable if≤5, ideally≤3.3		
AFVIF=3.860, acceptable if≤5, ideally≤3.3		
GoF=0.468, small≥0.1, medium≥0.25, large≥0.36		
Line	**Coefficient**	**P value**
TIE→DER	0.00	>0.005
BRISK→DER	0.49	<0.001
Interaction effect		
Interaction SQRTTIE and NDTS	0.00	0.48
Interaction BRISK and NDTS	0.06	0.27
Total effect		
TIE→DER	−0.029	0.038
BRISK→DER	0.492	<0.001
NDTS (M1) → DER	−0.059	0.266
NDTS (M2) → DER	0.004	0.481
Effect size	Coefficient	
TIE→NDTS	0.006	
BRISK→DER	0.229	
NDTS (M1) → DER	0.015	
NDTS (M2)→DER	0.000	

APC: Average path coefficient, ARS: Average R-squared, AARS: Average adjusted R-squared, AVIF: Average block variance inflation factor, AFVIF: Average full collinearity variance inflation factor, GoF: Tenenhaus GoF, NDTS: Non debt tax shields, BRISK: Business risk, TIE: Time interest earned, DER: Debt to equity ratio

Table 3: R^2, Q^2 and full collinearity VIF

R^2	
DER	0.219
Q^2	
DER	0.272
Full collinearity VIF	
TIE (X_1)	3.708
BRISK (X_2)	1.526
NDTS (M)	1.490
DER (Y)	1.164

NDTS: Non debt tax shields, TIE: Time interest earned, BRISK: Business risk, VIF: Variance inflation factor, DER: Debt to equity ratio

model has predicelevan. While full collinearity VIF is a result of full co linearity that has multi co linearity vertical and literal. The criterion for full collinearity test is the value must be lower than 3.3 (Kock, 2013).

The test result shows that the value of R^2 of each endogen variable is 21.9% (DER). The model of this study has predictive relevant because it has the value of Q^2 above 0 (null). Based on the value of full collinearity VIF that is below 3.3 shows that in this study there is no multicollinearity and can be explained on Table 3 as follows:

4.3. Test of Moderation Model

Based on Table 2 it can be seen that NDTSs is as moderator variable at interaction and NDTS and SQRTTIE coefficient 0.00 and P value, following this explanation is the relation between variable criterion, predictor and moderator. Interaction TIE with non tax shields DER debt does not have significant influence, while the NDTSs also do not have significant influence against DER. Thus NDTSs is not as variable moderator which means that the variable non debt is not tax shields moderator, but it is the variable of intervening, exogenous, or predictor antecedent. Interaction of the business risk with NDTSs to DER and with coefficient 0.06; P value 0.27 does not have significant influence. Therefore, NDTSs is also not a moderator variable that means variable of NDTSs is not the moderator.

5. DISCUSSION AND INTERPRETATION

The first hypothesis is rejected. Namely TIE has had a positive impact and significant impact on DER. It was because the impact of pharmaceutical industry generally gets the difference the very small margin compared between the values of with the price of basic (COGS) sales. The result of this research consistent with research Yulisman (2014) stated TIE not significant to capital structure. The result of this research is not in accordance with trade off theory, where manager would think within the framework of trade off between thrift taxes and its cost financial difficulty in the determination of capital structure. Saving this tax according to Brigham and Ehrhardt (2013) in theory of trade off can be reduced by an interest, these reductions are worth more to company with the high tax rate. The higher tax rates an enterprise the large excellence from debt. The results of the research indicated with the ability TIE is high companies did not increase the debt.

The second hypothesis, namely; business risk has some positive effects significantly to DER. The company has the high financial distress, usually results just do the use of the debt steady or use debt high. The company has the business risks in the standard deviations 1 (one), the company will do financing for operating and ownership of using debt assets. The result of this research is not consistent with research of Nassar (2016) the results show that there is a negative significant relationship between capital structure and firm performance. The result of this research according to the theory trade off, in which the still good in this business risks low new not publish debt to prospective shareholders or investors. Hypothesis third NDTSs moderating the relationship between time interests earned to DER, rejected. This means NDTSs not moderating TIE to DER. The result of this research not in accordance with trade off theory, expressed by Myers (2001) the impact of the company would owed to the level debt certain, where saving the tax shields from additional debt equals cost financial hardship (financial distress). Saving tax according to Brigham and Houston (2011) in theory trade off can be reduced by an interest, these reductions are more valuable and give the impact for the company with the tax rate is high.

The results of the research indicated, with the ability TIE high companies did not increase the debt although the tax savings inflicted if it invests fixed assets. NDTSs not moderating the relationship between business risk to DER, hypothesis rejected which means NDTSs not moderating the relationship between business risks to DER. The results of the study not in accordance with trade off theory, the impact of a company that saving tax by not using additional debt investigate in assets remains when the business risk low and use the addition of a debt when business company high risk.

6. CONCLUSION, LIMITATION AND IMPLICATIONS

Based on the result of the hypotheses, it can be concluded that: TIE not has had a positive impact significant impact on DER. The amount the ratio TIE did not affect company pharmaceutical industry utilize the loan to a third party in this case debt. Company with a the ratio TIE small, continuously trying to finance their operations with debt that can still contribute to investment climate in pharmaceutical industry in Indonesia, and having impact for the difference margins not of equality between all products a drug that marketed.

Business risk has had a positive impact significant impact on DER. The company which has levels of risk business high where the profit obtained before taxes and interest/operating profit in comparison to the total assets be on a high level, tending to company impact to do financing their operations and ownership of asset used the funds capital alone and does not limit the use of debt. NDTSs not moderating causality relations between TIE to DER in this research company likely to stay use debt spike in finance operational/the purchase of the asset in the condition of the ratio TIE under 1.5, small margins obtained have an impact on continuity their business activities.

6.1. The Limitation of the Study

This study has some limitation that is hard to avoid, such as: This study sample having which is a little bit, because of the pharmaceutical industry which is listed on the Indonesia stock exchange only 11 companies and fulfilling the requirements to assay only 9 company, so that the outcome is evident is less than optimal.

This research is only limited on the variables of TIE and business risk and do not use other aspects, research has not described a situation as a whole to pharmaceutical industry in Indonesia and business risk used instead of systematic risk. The data taken from the research is in form of financial report, not applied the same accountancy standard during the period of 2009-2014, in the matter of the application of IFRS standard on pharmacy emitted registered in indonesia.

6.2. Implication of Result

Based on the research done, so implications as follows: The result of this research can be used for management company pharmaceutical industry especially, in taking policies related to regulations and in operational activities and company sustainability. And for investor as input or additional information before invest in pharmaceutical industry in Indonesia.

Researchers need to insert another factor in the independent variable as its dividend policy, company ownership, the value of the company, profit growth, the growth of assets, sales growth and the level of inflation or using the dependent variable, for example debt to asset ratio, as well as using the application of comparison accounting standard before and after the application of IFRS, as well as conducting research comparison between pharmaceutical industry with the field of other industries, automotive industry, industrial food and beverage and other.

REFERENCES

Akhtar, S., Oliver, B. (2009), Determinants of capital structure for Japanese multinational and domestic corporations. International Review of Finance, 9(1-2), 1-26.

Ampenberger, M., Schmid, T., Achleitner, A.K., Kaserer, C. (2013), Capital structure decisions in family firms: Empirical evidence from a bank-based economy. Review of Managerial Science, 7(3), 247-275.

Barakat, M., Rao, R.P. (2012), The Role of Taxes in Capital Structure: Evidence from Taxed and Non-taxed Arab Economies. SSRN 2026751.

Bradley, M., Jarrell, G.A., Kim, E. (1984), On the existence of an optimal capital structure: Theory and evidence. The Journal of Finance, 39(3), 857-878.

Brigham, E.F., dan Houston, J.F. (2011), Belas, D., editor. Dasar-Dasar Manajemen Keuangan. Vol. 1. Jakarta: Salemba Empat.

Brigham, E.F., Ehrhardt, M.C. (2013), Financial Management: Theory & Practice. Mason, OH: Cengage Learning.

De Jong, A., Kabir, R., Nguyen, T.T. (2008), Capital structure around the world: The roles of firm-and country-specific determinants. Journal of Banking and Finance, 32(9), 1954-1969.

Dwenger, N., Steiner, V. (2014), Financial leverage and corporate taxation: Evidence from German corporate tax return data. International Tax and Public Finance, 21(1), 1-28.

Gordon, R.H. (2010), Taxation and corporate use of debt: Implications for tax policy. National Tax Journal, 63(1), 151-174.

Graham, J.R. (2000), How big are the tax benefits of debt? The Journal of Finance, 55(5), 1901-1941.

Huang, G. (2006), The determinants of capital structure: Evidence from China. China Economic Review, 17(1), 14-36.

Jaggi, B., Gul, F.A. (1999), An analysis of joint effects of investment opportunity set, free cash flows and size on corporate debt policy. Review of Quantitative Finance and Accounting, 12(4), 371-381.

Kasmir. (2012), Analisis Laporan Keuangan. Jakarta: PT. Raja Grafindo. AQ1

Kock, N. (2013), Using WarpPLS in E-collaboration studies: What if i have only one group and one condition? International Journal of e-Collaboration (IJeC), 9(3), 1-12.

Kock, N. (2015), One-tailed or two-tailed P values in PLS-SEM? International Journal of e-Collaboration (IJeC), 11(2), 1-7.

Kolay, M., Schallheim, J., Wells, K. (2011), Do Non-Debt Tax Shields Matter for Debt Policy. University of Utah Working Paper.

Latan, H.G.I. (2013), Partial Least Squares: Concept and Application Path Modelling using Program XLSTAT-PLS. Semarang: Badan Penerbit Universitas Diponegoro.

Mackie-Mason, J.K. (1990), Do taxes affect corporate financing decisions? The Journal of Finance, 45(5), 1471-1493.

Marcus, B.M. (2006), Dasar-Dasar Manajemen Keuangan Perusahaan. Edisi Kelima., Jilid Satu. Jakarta: Erlangga.

Melewar, T. (2008), Facets of Corporate Identity, Communication and Reputation. London: Routledge.

Miller, M.H. (1963), Static-Trade of Theory. Cambridge: Cambridge University Press.

Myers, S.C. (2001), Capital structure. The Journal of Economic Perspectives, 15(2), 81-102.

Nassar, S. (2016), The impact of capital structure on financial performance of the firms: Evidence from Borsa Istanbul. Journal of Business and Financial Affairs, 5, 173.

Nor, F.M., Ibrahim, K., Haron, R., Ibrahim, I., Alias, M.A. (2012),

Practices of capital structure decisions: Malaysia survey evidence. International Review of Business Research Papers, 8(1), 33-63.
Princen, S. (2012), Taxes do Affect Corporate Financing Decisions: The Case of Belgian ACE.
Riaz, S.K. (2015), Research proposal impact of capital structure on firm's financial performance: An analysis of chemical sector of Pakistan. Journal of Poverty, Investment and Development, 12, 85-93.
Ross, S.A. (1977), The determination of financial structure: The incentive-signalling approach. The Bell Journal of Economics, 8(1), 23-40.
Sahudin, Z., Mahmood, W.M.W., Ismail, F., Pardi, F., Aziz, A., Sahudin, M.A. (2011), Debt structure for Malaysian construction companies: Evidence from panel data analysis. Management, 1(3), 1-7.
Salawu, R.O., Agboola, A.A. (2008), The determinants of capital structure of large non-financial listed firms in Nigeria. The International Journal of Business and Finance Research, 2(2), 75-84.
Sawir, A. (2008), Analisis Kinerja Keuangan dan Perencanaan Keuangan Perusahaan. Jakarta: PT. Gramedia Pustaka Utama.
Song, H.S. (2005), Capital Structure Determinants an Empirical Study of Swedish Companies. Stokholm: Royal Institute of Technology.
Spence, M. (1973), Job market signaling. The Quarterly Journal of Economics, 4, 355-374.
Trinh, T.H., Phuong, N.T. (2015), Effects of financial crisis on capital structure of listed firms in vietnam. International Journal of Financial Research, 7(1), 66-70.
Yulisman, Y. (2014), Faktor-Faktor Yang Mempengaruhi Struktur Modal Perusahaan Pertambangan Di Bursa Efek Indonesia Periode 2009-2013, UPN" Veteran" Yogyakarta.
Zhao, J., Katchova, A.L., Barry, P.J. (2004), Testing the pecking order theory and the signaling theory for farm businesses. Urbana, 51, 61801.

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