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Measuring Debt Effectiveness of the Companies with the Highest Score of FSA/OJK Version in Indonesia (Financial Services Authority/Otoritas Jasa Keuangan)

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Abstract

Debt issues are a serious concern for companies especially related to the risk of interest and debt repayment when due. This is experienced by 7 companies in Indonesia who defaulted on debt in 2019. On the other hand, there are 50 companies that achieverd the highest score of FSA/OJK (Otoritas Jasa Keuangan) version, althought many of them have very high debts. This study aims to examine the use of debt and the risk of using debt of these companies, so that they are able to control their debt uses. Population of this study are taken from the companies with the highest score of OJK version from 2016 to 2019, samples are taken with purposive sampling by issuing the financial industries. Data analyzing technique used is path analysis using 2 exogenous variables namely the use of debt (leverage) and the risk of using debt (degree of leverage) and 1 variable endogeous namely the debt effectiveness (ROA). This study founds that the use of debt of these companies is effective, it is proven that the use of debt and its risks interact to increase profitability (ROA). Further more this research in line with the study by Indahwati and R. Suryasaputra, 2019.

Keywords
leverage; degree of leverage; debt effectiveness; highest score companies of OJK/FSA version

I. Introduction

Otoritas Jasa keuangan (OJK) is a Financial Services authority that has supervision and monitoring of each company, with one by means of social control such as announcements and awards for community standards for public companies and others. Center for Risk Management and Sustainability (CRMS, 2019) released that there are 50 companies with highest score assessment by OJK, although many of them have very high debt. Meanwhile many companies di Indonesia experience bad financial condition, so they unable to pay their obligations, as stated by (Sugianto, 2019), that there were 7 companies that failed to pay their debts in 2019.

This raises many question, whether the compay is unable to pay its debt due to miss management or caused by other factors. The use of long-term debt is needed by the company to finance the company's asset without losing control, but debt has risk consequences due to the interest expense that mus be paid. Therefore the use of debt has a large impact on the company's operation. This study aims to look at the effectiveness of the debt use of the corporate in increasing the company profitability and financial performance in order to survive.

Research Questions

1. Is there a correlation between leverage and degree of leverage?
2. Is there an influence of leverage on debt effectiveness?
3. Is there an influence of degree of leverage on debt effectiveness?
4. Is there an influence of leverage and degree of leverage interaction on debt effectiveness?

II. Review of Literature

2.1 Theory

Value creation is a goal that every company wants to achive, this value is reflected in common stock price. This can be achieved if the company have a good financial performance, throught investment decision, financing decision dan dividend decision (Van Horne, 2002). The company value or stock price is determined by its cash flows obtained from 1) operation activities, 2) financing activities, 3) investment activities as summarized in the Dupont System (Weston and Brigham, 1993). The Dupont system shows how return on investment, profit margin, total asset turnover and debt ratio interact each other to determine return on equity, which is formulated as follows:

$$ROE = ROA \times \frac{1}{1-D/A}$$

where ROA = Profit Margin x Total Assets Turnover

ROE = ROA x Equity multiplier

ROE = Profit margin x total assets turnover x equity multiplier

Profit margin shows cost control, total assets turnover shows effective use of assets, and equity multiplier shows effective use of debt.

2.2 Leverage

Leverage or debt has imporatant implications for the business. The benefits of use debt are tax deductible which reduce the effective cost of debt; the debtholder obtain a certain return, so that shareholders do not have to share their profits if the business is successful and it means that tha company control remains by shareholders. In addition, financial leverage allows increased earning per share (EPS). (Brigham and Joel, 1998) stated that by by raising funds through debt, stockholders can maintain control of a firm while limiting their investment; creditors look to the equity, or owner-suplied funds, to provide a margin of safety, so if the stockholders have provided only a small proportion of the total financing, the risks of the enterprise are borne mainly by its creditors; and if the firm earns more on investments financed with borrowed funds than it pays in interest, the return on the owners' capital is magnified, or levered. On the other hand, debts are also increase company costs because they have to pay interest which is a burden for operating income. The use of debts that are too high can lead to failure and bankruptcy (CFI, 2020).

According to (Gitman, Lawrence J.), leverage is the use of an asset or source of funds to magnify the returns to owners. Leverage is closly related to the risk of being unable to meet operating and financial obligation when due. Leverage has 2 forms, namely operating leverage and financial leverage. Operating leverage is used to increase cash flow and rate of

return by increasing fixed cost funds, in other word operating leverage shows the company's ability to use fixed cost funds to achieve a better profit. Financial leverage is used to borrow money through fixed income securities issuance, long-term debt etc.

Many definition of leverage, but it can be said that leverage is company's ability to use asset from debt to create high rate of return and reduce cost. Leverage is the amount of debt a firm uses to finance assets. Leverage is measured by debt ratio which is debt to total assets

2.3 Degree of Leverage

The degree of leverage concept is useful primarily for the insights it provides regarding the joint effects of operating and financial leverage on earnings per share (Corporate Finance Institute, 2020). The higher the degree of leverage, the higher is the risk involved in meeting fixed payment obligations i.e., operating fixed costs and cost of debt capital. But, at the same time, higher risk profile increases the possibility of higher rate of return to the shareholders. The higher the degree of leverage, the higher is the risk involved in meeting fixed payment obligations i.e., operating fixed costs and cost of debt capital. But, at the same time, higher risk profile increases the possibility of higher rate of return to the shareholders.

An operating leverage ratio refers to the percentage or ratio of fixed costs to variable costs. A company that has high operating leverage bears a large proportion of fixed costs in its operations and is a capital intensive firm. (SW. Brigham, 2003), that 1) the greater the use of fixed operating costs as measured by the degree of operating leverage, the more sensitive EBIT will be to changes in sales, and 2) the greater the use of debt as measured by the degree of financial leverage, the more sensitive EPS will be to changes in EBIT. Therefore, if a firm uses a considerable amount of both operating and financial leverage, then even small changes in sales will lead to wide fluctuations in EPS. A combination of high operating leverage and a high financial leverage is very risky situation because the combined effect of the two leverages is a multiple of these two leverages. It measures the effect of a percentage change in sales on percentage change in EPS (Pant, Sangram). Therefore degree of leverage is the total business risk, measured by a ratio summarized the effect of both operating and financial leverage. The higher the degree of leverage, the more vulnerable a company is for decrease in sales. Degree of leverage is formulated: Percentage change in EPS / percentage change in sales.

2.4 Return on Asset

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage. The Higher ROA indicates more asset efficiency. (Hagel III, John, 2020) focused on a metric that receives far less attention from executives and investors alike return on assets (ROA) to analyze long-term profitability trends across all public companies in the US. Return on assets avoids the potential distortions created by financial strategies like those mentioned above. ROA takes into account a company's debt, unlike other metrics, such as Return on Equity (ROE). In other words, the impact of taking more debt is negated by adding back the cost of borrowing to the net income and using the average assets in a given period as the denominator. (Simons, Robert, 1995) used ROA as a high-confidence business plan criteria to see promising financial potential of the company. (Zhang, Xianzhi, 2014), that because of separation of ownership rights and operation, management power operator of the company have some kind of power control to responsible on assets and ROA. Return on Assets = Net Income / total assets.

2.5 Previous Research

Study by (Duca Florinita, 2012) found that high debt level causes significant positive impact on ROE. Debt is used by many companies to leverage their capital and profit. However, debt is not the only factors that effect to leverage capital and profit. (Ndubuisi, Kenn et al, 2019), concluded that financial leverage has significant effect on the profit growth of firms and also that there exist a significant relationship between the inflation rate and profit growth but the relationship with the interest and exchange rates on financial leverage of quoted companies in Nigeria.

The study of the effect of liquidity, leverage and total asset turnover on profitability conducted by (Munawar, Aang, 2019), shows that simultaneously liquidity, leverage and total asset turnover have an influence on profitability of manufacturing companies. Partially liquidity, leverage and total asset turnover have a significant positive effect on profitability.The results of this study also have successfully identified that asset turnover is the dominant factor that affects on profitability and recommends that the Government in infrastructure development better prioritize the auction to listed companies in IDX.

Study by (Irman, Mimelientesa et al., 2020), shows that Current Ratio has a significant effect on ROA, Debt to Equity Ratio has a not significant negative effect on Return On Assets, and Total Asset has a significant positive effect on Return On Assets. (Kartikasari, Dwi and Marisa Merianti, 2016) used leverage was measured by debt ratio, while firm size was measured by total assets and total sales, and profitability by return on assets. The study found that the debt ratio has a significant positive effect on profitability while total assets has a significant negative impact. In contrast, total sales has statistically insignificant effect to the profitability of the companies.

2.6 Conceptual Framework

Conceptual framework is arranged based on proposition as follows:

Leverage is the use of debt, which is how much assets are financed with debt to increase asset and net income, but in the same time is the company's ability to use assets from debt to create good returns and reduce cost. Degree of leverage is the risk that will be arise becaruse of change in sales affect, so it is a control for the company in dealing with debt. The interaction between the use of debt (leverage) and risk (degree of leverage) will be able to anticipate risk itself so that it is expected to increase company profitability. Profitability is measured by ROA to see debt effectiveness, because ROA is a combined effect of profit margin and total asset turnover (asset management ratio), wich is described in the conceptual framework below:

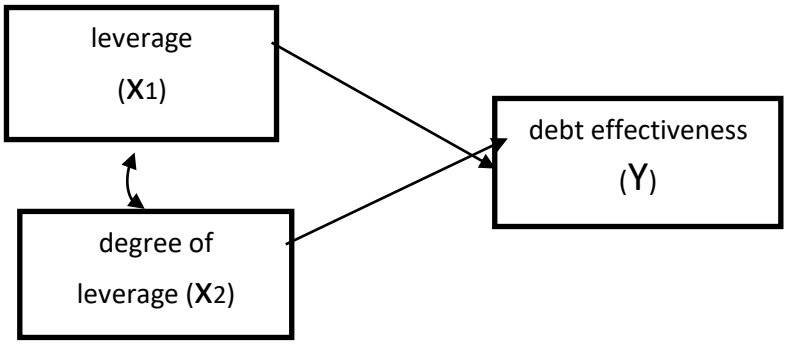

Figure 1. *Conceptual Framework*

2.4 Hypotheses

1. There is a correlation between leverage and degree of leverage
2. There is an influence of leverage on debt effectiveness
3. There is an influence of degree of leverage on debt effectiveness
4. There is an influence of leverage and degree of leverage interaction on debt effectiveness

III. Research Methods

3.1 Research Population

Population of this study are companies with highest score of FSA/OJK in Indonesia. The sample are taken from these 50 companies excluded financial industies with purposive sampling way, so there are 31 companies for 3 years from 2016 – 2019, and obtained 40 analysis units.

3.2 Research Variables and Measurement

Variables in this research are 2 exogenous variables which are leverage and degree of total leverage, and endogenous variable is effectiveness of debt uses.

a. Leverage is the amount of debt a firm uses to finance assets. It is measured by debt ratio = total debt/total assets.
b. Degree of leverage is the total risk of business because it include both operating risk and financial risk (Pant, Sangram). It measures the effect of a percentage change in sales on percentage change in EPS.
c. Debt effectiveness is the firm's ability to efficiently allocate and manage its resources, including debt uses. (Hagel III, John, 2002). (Zhang, Xianzhi, 2014), (Simons, Robert, 1995). Return on Assets as measured by Net Income / total assets

3.3 Data Analyzed Technique

This study uses 2 exogenous variables and 1 endogenous variable, the exogenous variables are X1 Leverage, and X2 degree of leverage, and the endogenous variable is debt effectiveness. This study uses path analysis:

Direct effect

$$Y = \beta 1X1 + \beta_2 X2 + \varepsilon$$

Indirect effect through X_1 and X_2 interactions

$$Y = \rho yx1\ X1 + \rho yx2\ X2 + \rho y\varepsilon 1$$

where: Y = debt effectiveness, X_1 = leverage, X_2 = degree of total leverage ρyx1 = correlation coefficient X1 and Y, ρyx2 = correlation coefficient Xi X2 and Y

IV. Discussion

4.1 Results

There are 31 OJK's highest score companies outside the financial industry with 40 analysis units, 30 percent of them are BUMNs. Tabel1 shows descriptive data, that the company's highest debt are 79%, and the lowest are 6%, on average 42%. It describes that company debt is very high and very varied. Likewise, company debt range from -0,8 to 1,55 with an average of 0,53. Debt effectiveness ROA also shows the same thing with average of 7,6%. (Table 1).

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	40	,02	,79	,3970	,21465
degree of leverage	40	-,08	1,55	,5353	,37899
debt effectiveness	40	,37	24,03	7,6055	5,80160
Valid N (listwise)	40				

a. Hypothesis Testing to Answer the Research Question

1. Correlation

Table 2. Correlations

		leverage	degree of leverage	Debt effectiveness
Leverage	Pearson Correlation	1	-,027	-,343*
	Sig. (2-tailed)		,868	,030
	N	40	40	40
degree of leverage	Pearson Correlation	-,027	1	,465**
	Sig. (2-tailed)	,868		,002
	N	40	40	40
Debt effectiveness	Pearson Correlation	-,343*	,465**	1
	Sig. (2-tailed)	,030	,002	
	N	40	40	40

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

This study shows that all correlations between variables are significant at 1% and 5%. The correlation between leverage and degree of leverage is negatively significant of -0.027, the correlation between leverage and debt effectiveness is -0,343, and the correlation between degree of leverage and debt effectiveness is 0,465. It proves that:

Hypothesis 1 is accepted that there is a correlation between leverage and degree of leverage.

2. Regression Analysis

Table 3. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8,702	1,853		4,696	,000
	Leverage	-9,308	3,801	-,331	-2,449	,019
	degree of leverage	3,734	1,106	,456	3,377	,002
	R Square =0,326					
	F = 8,932					
	Sign = 0,001					

3. Dependent Variable: Debt Effectiveness

The result of the regression analysis:

$$Y = -0,331X_1 + 0,456X_2 + Ɛ$$

This result in Table 3 shows that leverage has significant impact on debt effectieness of -0,331, at significant value 0.019. It proves that

Hypothesis 2 is accepted that there is an influence of leverage on the debt effectiveness.

The degree of leverage has signifikan impact on the debt effectiveness of 0,456 at significant value of 0,002. It proves that:

Hypothesis 3 is accepted that there is an influence of degree of leverage on the debt effectiveness.

b. The Influence of Leverage and Degree of Leverage Interaction on the Debt Effectiveness

The influence of leverage and degree of leverage interaction on the debt effectiveness summarized (Munir, Abdul Razak, 2005), on Table 4 below:

Table 4. Recapitulation of Calculation of the Influence of Leverage and Degree of Leverage Interaction on Debt Effectiveness

	Direct effect	Indirect effect	Total effects
$X_1 \rightarrow Y$	-0,331 x -0,331 = 0,1096	-0,331 x -0,027 x 0,456 = 0,0040	0,1096+0,0042 = 0,1138
$X_2 \rightarrow Y$	0,456 x 0,456 = 0,2079	-0,456 x -0,027 x -0,331 = 0,0040	0,2162 + 0,0042 = 0,2120
Total effect X_1X_2 on Y			0,3258 = 0,326 =Rsquare
$\rho y = \sqrt{1-0,326} = 25,96$			

The regression result as below:

$$Y = 0,1138X_1 + 0,2120X_2 + 0,2596\ Ɛ1$$

The influence of leverage and degree of leverage interaction on debt effectives is 0,326, shows that:

Hypothesis 4 is accepted that there is an influence of leverage and degree of leverage interaction on the debt effectiveness.

4.2 Discussion

The result of this study indicate a significant negatif correlation between leverage and degree of leverage of -0,027. The result is not in accordance with the theory that the higher the use of debt, then the higher the risk, which does not apply to these companies with highest score of OJK. It can be explained that these companies are engaged in the telecomunications, mining and toll roads. The increase in the value of the company's shares, the higher the company value, the higher it will be (Katharina, 2021). In the current economic development, manufacturing companies are required to be able to compete in the industrial

world (Afiezan, 2020). The existence of the company can grow and be sustainable and the company gets a positive image from the wider community (Saleh, 2019). They have regular customer, so it does not directly affect the company's revenue, which is the income can also be estimated. Thus the company's high debt reaching 79% does not cause probllems, other than that the debt indeed used for development which means it used appropieately. The company's risk wich is degree of leverage shown in Table 2, that the highest risk is 1.55, and lowest risk is -0.08, it describes that the companies that have high risk because the use of debt will control their debts.

The influence of use of debt on debt effectiveness is a significant negatif of -0.331 Table 1), this shows that this study supports the research conducted by (Irman, Mimelientesa et al., 2020), that use of debt (debt equity ratio) has a significant negattive effect on ROA, and is not supports the study by (Munawar, Aang, 2019), that liquidity, leverage and total asset turnover have a simultaneous effect on profitability of manufacturing companies, and partially liquidity, leverage and total asset turnover have a significant positive effect on profitability. Meanwhile the influence of use debt (leverage) on debt effectiveness (ROA) throught use of debt (leverage) and risk (degree of leverage) iteraction is positively significant of 0.1138 or 11.38 percent (Table 4). It describes that use of debt itself can have a negative impact on a company's profitability due to risks, but by controlling risks the impact will be positive.

The influence of use of debt (leverage) on debt effectiveness (ROA) is positive significant of 0.456 (table 3). meanwhile the influence of use of debt on debt effectiveness through use of debt and risk interaction of 0.2120 or 21.20 percent Table 4). This study does not not support the study conducted by (Gitman, Lawrence J.) that leverage is the use of an asset or source of funds to magnify the returns to owners. Leverage is closly related to the risk of being unable to meet operating and financial obligation when due. This result describes that these companies have considered the size of debt with the risk.

The total effect of use of debt and the risk of using debt by 0.326 or 32,6 percent (Table 4) on debt effectiveness through the use of debt and risk interaction. Thus it can be concluded that the use of debt of the companies with highest score of the OJK is effective , it is proven that the use of debt and its risks interact to increase profitability (ROA).

V. Conclusion

5.1 Conclusions

1. There is a correlation between leverage and degree of leverage.
2. There is an influence of degree of leverage on the debt effectiveness.
3. There is an influence of degree of leverage on the debt effectiveness Leverage
4. That there is an influence of leverage and degree of leverageinteraction on the debt effectiveness.

5.2 Implication

The use of debt can not only be seen from the amount and risk, but futher that the debt is also the credibility and motivation for the company to work harder so that it can repay its debt when due.

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