CORRELATION AND RELATIONSHIP ANALISYS FOR BUSINESS RISK AND COMPANY ASSETS
(Case Study of Food and Beverage Companies in Indonesia)

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SUMMARY

Purpose : This study aims to investigate how variable ratios such as capital structure, NPM, ROA, asset structure and business risk on 60 companies listed on the IDX to know the book ending 2016.
Research methodology : The method used in this research is descriptive statistic analysis, correlation analysis and multiple regression analysis.
Findings : result of research explains that capital structure of 60 food and beverage industry company have significant relation with variable of Net Profit Margin (NPM) equal to 0,0658, business risk equal to 0,0401, asset structure equal to 0,0019 and for ROA variable with no relation significant with a value of 0.5929. So that 3 variables that have significant relationship and 1 variable of capital structure with ROA is not significant.
Originality : This study can contribute to the existing literature, especially those related to the analysis of the company's financial ratios. And later the results of this study can be used as an investigation tool about the impact of business risk to the company's financial analysis of the food and beverage industry.

Keywords: business risk, profitability, size, sales growth, capital structure.

INTRODUCTION

Fiscally the capital structure can determine the organization of the company financially and health. The company's financial leaders create an effective and efficient capital budget structure, by diversifying loan financing such as short-term debt and long-term debt and in the form of outstanding shares. The financial analyst model can be done and evaluates the financing structure by looking at the characteristics of the financing model undertaken by the company, as well as the analysis of long-term financial assets, financial set analysis of the control of the company's financial leaders, or it could be in the form of planning analysis and analysis of the company's historical performance in the past. The existence of flexible and efficient capital structure makes a key in lowering costs and can increase profits and dividends for stakeholders. Using an efficient and effective model of capital structure analysis can be made in-depth research material. An established company, simply plotting the assessment of capital structure as well as ongoing financial practices within the company. In the analysis of capital structure, if done in detail, it can assist the organization

of the company in determining the direction of the policy that is important, for example in the pricing of a product or service, or within the terms of the loan in the short term or long term that has been received, or in the form of allocating some of the company's resources. The occurrence of a process of capital structure optimization, can reduce the risk of default, as well as can increase corporate earnings indirectly, and can increase shareholders' capital.

THEORY REVIEW

CAPITAL STRUCTURE

In Weston and Copeland, (1992) and Munawir (2004), explain about capital. According to them, capital is one of the rights and one part of the existing components in financial funds, which are in equity position, indicated by the recognition of common share capital and preferred stock, the share of operating profit and the profit component is held up. This welding is part of the excess of the assets owned by the company against the components of other parts in the balance sheet position. The existence of company policy in choosing additional sources for business capital, part of the financing process that is faced to the situation to increase operating cash flow. From several existing financial ratios, long-term debt to equity is one of the ratios that should also be used as a measuring tool in the analysis of a company's finances. Or commonly called the long-term debt to equity ratio over the composition of the company's capital structure and debt to capital, the amount of corporate financial leverage is determined by this ratio.

ASSET STRUCTURE

In Darmawan (2003), Syamsudin, (2001), and Riyanto (2001) define the Asset Structure as determining how much allocation of each component of the asset describes the distribution of the assets of lancer and non-lancer assets and other assets. The asset structure can also be interpreted as a balance and comparison of a component of current assets with fixed assets. So the asset structure can be explained some of the composition of the presentation of assets in the format of existing financial ratios of financial statements, the comparison is a formula of current assets with fixed assets. With the difference in the composition of assets that can be used as collateral company, affecting financing and an investor will be easier to provide loans if accompanied by existing guarantees.

COMPANY SIZE

In Sujianto, (2001), to say that to measure a company's size, is to describe the size of a company, the big and small is shown from the ratio of total assets to the amount of sales that are owned by the company during 1 accounting period. Large companies in large companies have diversified with operational risk levels slightly smaller than small companies that sell different types of products. In Nofal, (2007) The word size is negatively associated with a chance of a failit. From an asymmetric point of view of information, in large firms, the information asymmetric issue between management and investors is smaller, so large firms are easier at issuing securities that are sensitive to asymmetric information issues, such as stocks. Based on this thinking, large companies are less indebted than small companies.

PROFITABILITY

According to Sartono, (2001) and Riyanto (2001) explain the meaning of profitability as a company's ability to earn profits, strong relationship with sales components, total assets owned by the company,

or own capital. Profitability can also explain how much a company's ability to earn a profit during the current accounting period. From the explanation it is concluded that the profitability of one company's ability to generate profit, by comparing the profit earned by the company during one accounting period, to the amount of assets or capital owned. This theory provides two different assumptions, related to profitability. The first assumption of profitability and the level of debt has a positive relationship because profitable companies are more likely to owe to take advantage of the economy significantly. On the one hand, however, creditors expect low-risk firms to be attributed to the fact that with profit, firms can fulfill their obligations to creditors, so debt levels are positively correlated with profitability. The second assumption in Nofal (2007) that the argument of agency costs implies that the greater the yield given by assets, the greater the free cash flows that must be reduced by the obligation to pay the debt.

BUSINESS RISK

Business risk according to Atmaja (1999), Brigman & Houston, (2006), and Gitosudarmo & Basri, (2008) is a situation where the possibility of a loss or deficiency that can be explained by using data or information that is quite reliable or more relevant . Or business risk is an incident that can not be sure how much the company's operating revenue earned in the future and the possibility of future losses will be gained. So that business risk can stand alone as a function of data in katakana existence of uncertainty that arise, but this risk can be done projection return of capital which have been invested in a company.

HYPOTHESES DEVELOPMENT

In this research built the hypothesis as follows:
H1: There is a correlation between the variables in the study
H2: There is a significant relationship between the variables in doing research

TIME, DATA AND RESEARCH METHODS

TIME AND DATA RESEARCH

This research was conducted in October 2017. The data used in this study consisted of capital structure, net profit margin, business risk, asset structure and ROA of 60 companies listed on the BEI during 2016.

DATA ANALISYS TECHNIQUE

This research uses 3 analisys data technique :
Descriptive statistic analysis model
The purpose of this descriptive statistical analysis technique is to organize the data obtained and to be able to clarify the issues to be discussed. This arrangement is done by tabulating the data in tabular form
Correlation analysis
The purpose of this analysis to measure the strength of the relationship 2 Variable or more and also to be able to know the form of relationship between 2 variables or more with the results of a quantitative nature.
Multiple regression analisys
The purpose of multiple linear regression analysis is done to measure the intensity of the relationship between two or more variables and make predictions of the estimated value of the dependent

variable X over the variable Y. Variables used as variable Y are capital structure and variable X1, X2, X3 and X4 are Net profit margin (NPM), business risk, structure asset and ROA.

RESULT RESEARCH

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. The results of the analysis for the variables in doing research, seen and presented in table 1 below :

Table 1 Result for statistic descriptive

	Capital Structure	NPM	Business Risk	Structure Asset	ROA
Mean	1.056500	0.076500	0.073000	0.537000	0.069333
Median	0.950000	0.075000	0.060000	0.555000	0.050000
Maximum	2.710000	0.370000	0.310000	0.740000	0.320000
Minimum	0.250000	-0.230000	-0.060000	0.300000	-0.050000
Std. Dev.	0.660572	0.092623	0.077794	0.110688	0.071731
Skewness	0.808546	0.178710	1.149948	-0.180844	1.113268
Kurtosis	2.708651	5.287852	4.170495	2.352491	4.463161
Jarque-Bera	6.749668	13.40504	16.64896	1.375217	17.74575
Probability	0.034224	0.001228	0.000243	0.502777	0.000140
Sum	63.39000	4.590000	4.380000	32.22000	4.160000
Sum Sq. Dev.	25.74497	0.506165	0.357060	0.722860	0.303573
Observations	60	60	60	60	60

Source : Proceed by author with STATA

In descriptive statistics that must be remembered from the above output are:
• Mean is the sum of all data values divided by the number of data / cases.
• StDev (standard deviation) is the positive square root of variance
• Variance is the sum of the squares of the difference between the observation value and the average count divided by the number of observations.
Q1 is a quartile to one, remember the meaning of quartiles are the values that divide the ordered data into four equal parts, so that in a cluster there are 3 quartiles (quartile 1, quartile 2 / median and quartile 3).
• Median is the median value of observed values that are arranged regularly according to the size of the data.
• Q3 is the third quartile.
• Range is the difference between the maximum value and the minimum value in a data cluster.
• IQR (interquartil range) is the distance between the 75th percentile and the 25th percentile.
• Mode is the value that has the largest frequency in a data set.
• Skewness is a measure that can be used to determine the tilt or absence of a distribution curve.
• Kurtosis is the rate of mounting a distribution that is generally compared to a normal distribution. All of which is described above, is in the table view 1. It is obvious if the observed data, the number of 60. For further tests, the use is a correlation test.

The correlation is one of the most common and most useful statistics. A correlation is a single number that describes the degree of relationship between two variables. Let's work through an example to show you how this statistic is computed.

Table 2 Result for correlation

	Capital Structure	NPM	Business Risk	Structure Asset	ROA
Capital Structure	1	-0.421769408260	-0.360455578581	-0.138187171813	-0.402179286254
NPM	-0.421769408260	1	0.534736828384	-0.250014271268	0.818280759085
Business Risk	-0.360455578581	0.534736828384	1	-0.491615071566	0.834426076747
Structure Asset	-0.138187171813	-0.250014271268	-0.491615071566	1	-0.399448967039
ROA	-0.402179286254	0.818280759085	0.834426076747	-0.399448967039	1

Source : Proceed by author with STATA

From table 2 above can be obtained information that:
• Partial correlation coefficient between Capital structure and NPM is -0.360. The relationship between Capital structure and NPM is very weak.
• Partial correlation coefficient between Capital structure and Business risk is -0.360. The relationship between Capital structure and Business risk is very weak.
• Partial correlation coefficient between Capital structure and asset structure is -0.138. The relationship between Capital structure and asset structure is very weak.
• Partial correlation coefficient between Capital structure and ROA is -0.402. The relationship between Capital structure and ROA is very weak.
• How to read the same information and study, also applies to the relationship between the other variables in the table.
The next test is multiple regression, as presented in Table 3.

Table 3 Result for multiple regression

Dep. : Capital Structure				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.789620	0.454670	6.135486	0.0000
NPM	-2.897726	1.543539	-1.877326	0.0658
Business Risk	-4.198356	1.996863	-2.102475	0.0401
Structure Asset	-2.456079	0.753939	-3.257661	0.0019
ROA	1.643508	3.056293	0.537746	0.5929
R-squared	0.334684	Mean dependent var		1.056500
Adjusted R-squared	0.286297	S.D. dependent var		0.660572
S.E. of regression	0.558057	Akaike info criterion		1.750945
Sum squared resid	17.12854	Schwarz criterion		1.925474
Log likelihood	-47.52836	Hannan-Quinn criter.		1.819213
F-statistic	6.916869	Durbin-Watson stat		0.906765
Prob(F-statistic)	0.000139			

Source : Proceed by author with STATA

From the output of software analysis column in table 3 above, can be obtained information that the coefficient of simultaneous correlation is 0.334. This value indicates that the relationship between all

independent variables with the dependent variable is weak. Also can be obtained also information how the coefficient of determination is equal (0.334) 2 x 100% = 33.4%. This value indicates that the contribution of all independent variables to the dependent variable simultaneously is 33.4%. The remaining 66.6% is contributed by factors other than the factor represented by the independent variables in this case.

CONCLUSION

From the research that has been done, this research has a purpose to know how the ratio of variable like capital structure, NPM, ROA, asset structure and business risk at 60 companies listed in BEI using company financial report for food and beverage industry ending for year 2016 From the research that has been carried out, using descriptive statistical analysis method looks the general picture of data as presented in table 1. Followed by correlation analysis and multiple regression analysis, it was found that the ratio of financial ratios carefully, has correlation correlation of -0.4217 for the relationship between capital structure and Net profit margin (NPM), -0.3604 for capital structure and business risk, -0.4021 capital structure and ROA, -0.1381 for capital structure with structure asset. while for ROA variable correlated with NPM variable, business risk capital structure and strong and strong asset structure with values ranging from -0.3994 up to 0.8344. While the results of the last analysis by using multiple regression. The conclusion that variable Capital structure is a variable Y which has a significant relationship with Net Profit Margin (NPM) (X1) with 0,0658, business risk with value 0,0401 (X2), asset structure with value 0,0019 (X3) and ROA not significant at the value of 0.5929 (X4). So that only 3 significant variables, but 1 variable has no significant relationship that is variable of capital structure that is varaibel ROA.

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