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Analysis of Company Size and Leverage on Profitability

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Abstract. Companies that have a larger size have an effect on increasing profitability and it is expected that with a larger size, it is estimated that the company has the opportunity to attract large amounts of debt compared to small companies because the value of the assets used as collateral is greater and the level of bank confidence. is also higher, while with the use of debt (leverage), the interest paid can reduce income taxed so that profits will increase, and the use of debt can advance the company's assets which will increase the company's profitability. The purpose of this research is to examine the impact of company size and leverage on profitability, where firm size is measured by Natural Logarithm (Ln) Total Assets, Leverage is measured by Debt Equity to Ratio (DER) and Profitability is measured by Return On Earning (ROE) at Food and Beverage Sector Industrial Company listed on the Indonesia Stock Exchange. This study uses secondary data through the Annual Financial Statements obtained from the website www.idx.go.id and from the website of each company with data collection methods using purposive sampling there are 14 companies from 51 populations of food and beverage manufacturing companies listed on the Stock Exchange. Indonesia period 2016-2019. The data analysis technique uses multiple linear regression using SPSS ver 21 software. The results show that company size has a significant effect on profitability/Return on Equity (ROE). And leverage (debt to equity ratio) also has a significant effect on profitability/return on equity (ROE).

Keywords: Company Size, Leverage and Profitability

1. Introduction

Every company in carrying out business activities certainly has certain goals, and one of them is to make a profit. This goal can be achieved if the company's management works with a high level of effectiveness [1]. The level of management effectiveness shown from the profit from sales or investment income can be known through the profitability ratios owned [2]. Profitability is a description of the company's capital ability to generate profits [3]. The return available to shareholders on invested capital is measured by the Return On Equity (ROE) ratio. A good ROE implies that shareholders will get a large share of profits, besides that creditors feel safe because the debt provided is guaranteed by the shareholders. This is what makes investors and creditors interested in investing their funds [4]. There are other factors that can affect profitability that comes from internal companies, namely leverage, another name for leverage is debt to ratio. Debt (leverage) is one of the tools used by companies to increase their capital in order to increase

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profits [5]. Leverage is a ratio used to measure the extent to which the company's willingness to pay its obligations in the form of debt to the company's capital. What is leverage? [6], states that the use of financial leverage can increase expected profitability, in addition to financing the company's capital, the use of debt is expected to increase the company's income because the company's assets are used to generate profits. In addition to the leverage that a company has, another internal factor that affects the profitability of a company is the size of the company. The size of a company is a measurement of its equity, sales, number of employees, and the total value of assets they own. [7]. The higher the total assets, which shows the company's assets, indicates that the company is classified as a large company. Conversely, the lower the total assets, it indicates that the company is classified as a small company. The more assets a company has, the more assets it has. This is a measure of a company's worth., [8]. Size can also be used as a proxy to explain various annual report disclosures regarding information from the company.

Research conducted by [9] has the result that leverage has a positive and significant effect on company profitability and the results of research from [10] and also research results from [11] state that leverage has a positive effect on profitability. However, leverage or the use of debt can have a negative effect on profitability, this is seen from the results of research by [12] and research results from [13] The principle of leverage is that by borrowing money, it can be used to make more money. However, using too much leverage has a negative effect on company profitability because the level of leverage increases the risk which is marked by a higher cost of debt. The profit of this company is low because the company has to focus on generating cash flow to pay off their debt instead of focusing on increasing their productivity. Research carried out [14] that the size of the company is used to see market power and efficiency, if the company has high efficiency and large market power, then the profitability of the company is higher so that the size of the company has a positive effect on profitability. conducted by [15], also has the result that company size has a significant positive effect on profitability. Thus, firm the size of a company has been a popular variable in explaining profitability, and several studies have investigated the effect of company size on profitability. [16]. Meanwhile, research conducted by [17] found that company size had no significant effect on profitability. Based on some of these studies indicate that there are differences in previous studies of variables that affect profitability, it is necessary to do further research between the effect of Firm Size and Leverage on Profitability.

The purpose of this study is that researchers are interested in using industrial companies engaged in food and beverages, because these companies have an effect on business in general and provide benefits to the company. If there is a downward economic cycle, the food and beverage companies will not experience a decline. This can be proven by the phenomenon of changes in return on equity in food and beverage companies during 2016 to 2019 which is marked with (+) if there is an increase in return on equity. If the company wants to get a high return on equity, then the company must increase sales. If the return on equity of a company is high, then the company has a fairly good performance so that the company gets high income. And the amount of debt used and the short repayment period will result in permanent dependents from a company. Pay attention to the benefits of loyalty so that the use of debt can advance the company's assets and will increase the company's profitability.

In 2016, manufacturing companies in the food and beverage sector showed a positive performance with growth reaching 9.82% or Rp 192.69 trillion in the third quarter. The growth of this industry is mainly driven by the tendency of society, especially the upper middle class, to prioritize the consumption of hygienic and natural food and beverage products. In 2017, manufacturing companies in the food and beverage sector experienced a decline or slowed down

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in the second quarter of 7.19% compared to 8.15% in the first quarter [18]. Based on this phenomenon, the purpose of this study is to determine the performance of the food and beverage sub-sector companies in 2016-2019, which is described in more detail as follows: 1. How does company size affect profitability in food and beverage sub-sector companies listed on the Stock Exchange Indonesia for the period 2016 – 2019? 2. How is the effect of leverage on the profitability of the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the period 2013 – 2017?

2. Method

The research subjects used in this study were food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2016-2019. The object of this research is divided into independent variables and dependent variables. The independent variables in this study are firm size and leverage. The dependent variable in this study is profitability. The sample selection method used is the purposive sampling method, namely the sample selection method based on certain criteria in accordance with predetermined criteria according to the problem to be studied. The criteria used in this study are as follows: (a) Manufacturing companies that are consistently listed in IDX during 2016-2019, (b) Manufacturing companies that earned profits during 2016-2019, and (c) Manufacturing companies that presented financial statements using the rupiah currency (IDR) during 2016-2019.Table 1 Food & beverage companies drinks 2016-2019 on the IDX:

Tabel 1. Food and Beverage Manufacturing Companies

No.	stock code	issuer name	IPO date
1	AISA	Tiga Pilar Sejahtera Food Tbk	1997-06-11
2	ALTO	Tri Banyan Tirta Tbk	2012-07-10
3	CEKA	Wilmar Cahaya Indonesia Tbk (d.h Cahaya Kalbar Tbk)	1996-07-09
4	DLTA	Delta Djakarta Tbk	1984-02-12
5	ICBP	Indofood CBP Sukses Makmur Tbk	2010-10-07
6	INDF	Indofood Sukses Makmur Tbk	1994-07-14
7	MLBI	Multi Bintang Indonesia Tbk	1994-01-17
8	MYOR	Mayora Indah Tbk	1990-07-04
9	PSDN	Prashida Aneka Niaga Tbk	1994-10-18
10	ROTI	Nippon Indosari Corporindo Tbk	2010-06-28
11	SKBM	Sekar Bumi Tbk	1993-01-05
12	SKLT	Sekar Laut Tbk	1993-09-08
13	STTP	Siantar Top Tbk	1996-12-16
14	ULTJ	Ultrajaya Milk Industry and Trading Company Tbk	1990-07-02

In analyzing the company's financial statements [19], the profitability ratio shows how well the company uses its assets to generate profits and value for shareholders. Profitability in this study is proxied by using Return on Equity (ROE). ROE measures the company's ability to earn profits available to shareholders. This ratio is also influenced by the company's debt, if the proportion of debt is greater, this ratio will also be greater. or can be formulated as follows:

$$ROE = \frac{\text{Net Income}}{\text{Shareholder Equity}}$$

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Firm size can be measured in several ways, including total assets, total sales, and market capitalization [20]. In the study, the size of a company is explained by the number of assets owned by the company, which is measured by the total assets or commonly referred to as Ln (assets).. The size of the company in this study is proxied by using total assets. Company size is calculated by the natural log of the total assets of a company, or can be formulated as follows:

$$Size = \ln(total\ assets)$$

[21] believes that financial leverage is the use of third-party fund facilities in order to achieve the greatest return for investors and facility owners, which represents the debt-to-equity ratio. Leverage is defined as the ratio of debt to equity [22]. [23] Describe leverage as funds provided to businesses whose fixed costs must be borne. Leverage in this study is proxied using the Debt to Equity Ratio (DER), DER to determine each unit of own capital used to guarantee debt [24] DER is calculated by comparing total debt with equity, or formulated as follows:

$$DER = \frac{\text{Total Hutang } (Debt)}{\text{Ekuitas } (Equity)}$$

This research model : $ROA = \beta 1 Size\ Firm + \beta 2 Leverage + \varepsilon$

The data used in this study is secondary data in the form of the 2016-2019 Food and Beverage Company Annual Financial Statements, the data is taken from the internet link, www.idx.co.id. This research conducted classical assumption test, descriptive statistical test, t-test (t-test), F test (ANOVA test), coefficient of determination test (Adjusted R^2), and correlation coefficient test (R), and linear regression test. The data obtained in this study were processed using SPSS ver.21.

3. Results and Discussion

3.1 Descriptive Research Results

Descriptive statistical analysis test can provide an overview of data or describe research data that can be seen from the average value, standard deviation, maximum value and minimum value so that it can describe the characteristics of the sample data used in this study.

Tabel 2. Analisis Deskriptif

	ROE	SIZE FIRM	LEVERAGE
Mean	0.0354	6.1237	0.1269
Median	0.0384	5.8344	0.1373
Maximum	0.3854	7.1411	0.3302
Minimum	1.3664	4.2810	0.0039
Standard Deviasi	1.1198	1.4311	0.0265
	56	56	56

Table 2 contains descriptive statistics of the independent and dependent variables. The average ROE value of a company is 0.03 while the company's size and leverage are 19.6 and 0.45, respectively. 45% of the company's capital is financed from debt. The table above shows that Size Firm has the highest standard deviation of the other variables, which means that the standard deviation of the profitability variable is the lowest among other variables.

3.1.1 Multiple Linear Regression Analysis

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$$ROE = 0.475SIZE + 0.454DER$$

- ROE will increase by 0.475 for each Firm Size increase of 1% assuming the other variables are held constant
- ROE will increase by 0.454 for every 1% increase in DER assuming the other variables are held constant

3.1.2 Coefficient of Determination

Tabel 3 Coefficient Of Determination
Size firm on Probability

Model	R	R Square	Adjusted R Square
1	.765	.756	.708

From the analysis in Table 3, the results of R^2 (coefficient of determination) are 0.756. This means that 75.6% of the ROE variable will be influenced by the independent variable, namely SIZE FIRM. While the remaining 24.4% of the ROE variable will be influenced by other variables that are not discussed in this study.

The R value (correlation coefficient) is 0.765, this correlation value indicates that the relationship between the independent variable, namely SIZE FIRM and ROE, is included in the strong category because it is in the 0.70 - 0.89 range. Relationship between the independent variable , namely SIZE FIRM and ROE are positive, which means that as the independent variable increases, ROE will also increase..

Tabel 4 Coefficient Of Determination
Leverage on Probability

Model	R	R Square	Adjusted R Square
1	.565	.576	.506

From the analysis in Table 3, the results of R2 (coefficient of determination) are 0.756. This means that 57.6% of the ROE the independent variable, DER, will influence the variable in this equation. The remaining 42.4% of the ROE variable will be influenced by other variables that are not discussed in this study.

R value (correlation coefficient) is 0.576, which indicates that the independent variable, that is, the relationship between DER and ROE, is in the medium category because it is in the range 0.40 to 0.70. .. The independent variable, the relationship ROE between DERs, is positive. That is, as the independent variable increases, so does ROE.

3.1.3 Hypothesis test

Tabel 5. Hypothesis test

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Variable	hypothesis	T	Sig.	Description
SIZE → ROE	$H0: b1 = 0$ $H1: b1 \neq 0$	7.766	0.000	H0 rejected
DER → ROE	$H0: b1 = 0$ $H1: b1 \neq 0$	6.418	0.002	H0 rejected

Based on table 5 above, H0 is rejected, so it can be concluded that ROE can be significantly affected by the size of the company or the larger the size of the company, the ROE will also increase. Likewise with DER on ROE, Ho is rejected so that it can be concluded that ROE can be significantly affected by DER or by increasing DER, ROE will increase.

3.2 Discussion

3.2.1 Effect of Firm Size on ROE

Firm Size The positive regression coefficient value for the variable is 0.765. The value of the regression coefficient that indicates that Firm Size has a positive effect on ROE. This shows that every increase of one unit of Firm Size, assuming other variables remain, will increase ROE by 0.765. The results of hypothesis testing indicate that Firm Size significantly affects the ROE variable which can be seen from the significance level of 0.000 > 0. ,05.

Positive results show that a high firm size causes a higher firm value. This is because large companies tend to have more stable conditions. This condition is the cause of the increase in the company's share price in the capital market. Investors have high expectations of large companies. An increase in the demand for company Shares will help increase the value of shares. The company has increased in value.

Some researchers found that a firm's size has a positive relationship with its profitability [25,26]. Using a sample of manufacturing firms registered in Nigeria, examining the effect of firm size on profitability, the results reveal that firm size, has a positive effect on profitability.

3.2.2 Effect of Debt to Equity Ratio (DER) on ROE

The variable Leverage or DER It has positive Coefficient de régression value from 0.565. Positive The value of the regression coefficient indicates that DER has a positive effect on ROE. This illustrates that every increase of one unit of DER, assuming other variables still exist constant, will be increase ROE by 0.565. The results of the hypothesis test show that the Debt to Equity Ratio (DER) variable significantly affects the ROE variable which can be seen from the significance level of 0.000 > 0.05.

The results of this study state that the DER variable has a positive effect on ROE. Basically, food and beverage companies need large amounts of debt to meet their funding needs. The amount of debt added to the balance sheet will increase the interest expense. The interest expense will be deducted before the imposition of taxes so that the company has to pay less tax. This will leave more profit available to shareholders (ROE).

From several previous researchers, from [27]. [28] conducted research on food and beverage listed on the Indonesia Stock Exchange for the period 2003-2006. The results showed that partially DER had a significant effect on ROE, but DFL had no significant effect on ROE. explained that the most dominant variable affecting ROE is the Debt to Assets Ratio (DER).

4. Conclusion

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Based on the results of data analysis regarding the effect of company size and leverage on profitability in food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the period 2016 – 2019, it can be concluded that:

1. The results of testing the first hypothesis show that company size has a significant effect on profitability.
2. The results of testing the second hypothesis show that leverage has a significant effect on profitability.

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