

**Leverage and profitability comparison analysis pre and post merger
(study on company registered in Indonesia stock exchange 2000-2017 period)**

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Abstract

This research was conducted to analyze the differences in leverage and profitability ratios pre and post the merger of companies listed on the Indonesia Stock Exchange in 2000-2017. The method used in this research is descriptive and verification using hypothesis testing. Samples were collected based on purposive sampling which resulted in 38 companies and the analytical tools used include descriptive analysis, normality using the One-Sample Kolmogorov-Smirnov Test, and Hypothesis using the Wilcoxon Signed Rank. The data used are secondary data of DER and ROE on companies conducting the merger listed on the Indonesia Stock Exchange. The timing of the analyzes carried out by this study was two years pre and two years post the merger. The results of this study indicate that the development of Leverage (DER) fluctuates and tends to increase, inversely proportional to the decline in profitability (ROE) and only the profitability variable has a significant effect.

Key words: Merger; leverage; profitability; debt to equity ratio; return on equity

INTRODUCTION

The era of globalization requires existing companies to be innovative and creative to survive and be able to compete with companies and gain profits for the continuity of company operations. To be able to obtain this, a strategy that focuses on long-term and broad questions about what business will be entered by an organization is needed and what is desired in the business (Coulter, 2002: 250). The merger of companies is expected to increase productivity and reduce operational costs in managing the company. A business merger is an effort to combine a company with one or more other companies into one economic unit (Hadori and Harmanto, 2000: 224). The result of a company merger will increase because assets, liabilities, and equity are combined (Moin, 2003). So that in theory, the merger can strengthen the capital structure because upon the merger of two companies the capital, assets, equity, and liabilities of the company will increase and become better. However, it turns out that this is not following the theory of improved financial performance based on previous research which states that there is no difference in financial performance pre and post the merger, but the data shows that the company is still interested in the merger.

The success of the company in conducting a merger is measured by the financial performance so that the researcher wants to do research again on the merger. Based on previous research regarding mergers on financial performance conducted by several researchers, it shows different results. Indah Cahyarini (2017) shows that profitability measured using ROE pre and post the merger has decreased and the leverage measured using DER has decreased but not significantly. Meanwhile, research by I Gusti Ary Suryawati (2014) states that the profitability calculated by the ROE ratio does not change from pre and post the merger. The observation period in this study was two years before and two years post the merger. Researchers avoid the research period of one year because according to Munawir (2007: 31) financial reports are an important tool for obtaining information on the relationship with the financial position and the results that have been achieved, the data is meaningful for interested parties if the data can be used as a comparison for two periods and are further analyzed to arrive at a decision.

Literatur Review Corporate Action

A corporate action is a news that generally attracts the attention of related parties in the capital market, especially shareholders. (Darmadji and Fakhruddin, 2001: 123).

Merger

A merger according to J Gitman (2009: 762) is a merger between two or more companies where the operations are taken by a large company between the two companies concerned. In his book Moin, (2003) describes the notion of a merger, namely, a merger is one of the strategies taken by a company to develop and grow a company where the operations of the company that are taken over give up their operations to the taking over the company.

Financial Performance

The definition of performance is based on the Big Indonesian Dictionary (2001). Performance is defined as "something achieved, demonstrated achievement, workability (about equipment). Likewise based on the Big Indonesian Dictionary (2006). The definition of performance as "something that is achieved, demonstrated achievement, workability (about equipment)".

Leverage

The leverage ratio according to Brigham and Houston (2010: 140) is a ratio that measures a company's ability to fund debt originating from (financial leverage). The leverage ratio shows how far the company is financed by debt or external parties with the company's ability which is described by capital (equity). The leverage variable that shows the level of the company's ability to pay its debts is calculated using the Debt to Equity Ratio with the formula.

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}} \times 100\%$$

Source: Kasmir (2012:155)

Profitability

The definition of profitability according to Kasmir (2014: 115) is the ratio of profitability is a ratio to assess a company's financial performance, especially in seeking profit as measured by the level of management effectiveness of a company which shows the profit generated from investment and sales revenue. Profitability ratios are used to determine the company's ability to determine company's ability to get profit from earnings related to sales, assets, and equity-based on certain measurement bases.

$$ROE = \frac{\text{Earning After Tax}}{\text{Shareholder's Equity}} \times 100\%$$

Source : James C. Van Horne dan John m. Wachowicz, Jr. (2012:180)

METHODS

The method used in this research is descriptive and verification methods. The type of data in this study is secondary data obtained from publications or reports of an institution. This research model is classified as a comparative research model because this research is to compare the existence of a variable or more in two or more different samples (Sugiyono, 2010). The population in this study were all companies in the years 2000-2017 which conducted mergers totaling 38 companies.

RESULT AND DISCUSSION

Descriptive Analysis

The descriptive statistical analysis aims to provide an overview or explanation of data seen based on the minimum, maximum, mean, and standard deviation values.

Tabel 1.
Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
DER Sebelum Merger		.00	14.06	1.24	1.916
ROE Sebelum Merger	76	-37.32	117.06	19.46	26.003
DER Sesudah Merger	76	-.07	35.47	1.38	4.061
ROE Sesudah Merger	76	-26.36	163.70	14.02	27.327
Valid N (listwise)	76				

Source: SPSS version 23, processed data

Based on the table above, it is obtained that:

Debt to Equity Ratio in the year before the merger has a number ranging from 0.00 - 14.06 where the mean is smaller than the standard deviation ($1.24 < 1.916$), meaning that the data distribution is not good.

Return On Equity in the year before the merger has numbers ranging from -37.32 - 117.06 where the mean is smaller than the standard deviation ($19.46 < 26.003$), meaning that the data distribution is not good.

Debt to Equity Ratio in the year post the merger has numbers ranging from -0.07 - 35.47 where the mean is smaller than the standard deviation ($1.38 < 4.061$), which means that the data distribution is not good.

Return On Equity in the year before the merger has numbers ranging from -26.36 - 163.70 where the mean is smaller than the standard deviation ($14.02 < 27.327$), which means that the data distribution is not good.

Normality Test

The data normality test is carried out before testing the hypothesis by testing the normality of the data according to the research model to find out whether the data used has a normal distribution or not. This test is performed using the One-Sample Kolmogorov-Smirnov Test (K-S Test). The criteria used, if the significance ($\alpha < 5\%$) then the data is not normally distributed (Hair, 1998).

Difference Test Wilcoxon Signed Rank Test

The data obtained from the previous normality test shows that the Debt to Equity Ratio data can be continued with hypothesis testing using the Wilcoxon Signed Rank Test because it has abnormally distributed data. The hypotheses in this test include:

Ho: There is no difference in leverage and profitability pre and post the merger;

Ha: There are differences in leverage and profitability pre and post the merger.

Because the sample obtained is 76 greater than 25, so the distribution is close to normal. That way the data is calculated using the Z formula. Z table is determined by 5% (0.05) with the formula $-Z_{table} \leq Z_{count} \leq +Z_{table}$ or with the following conditions:

If the value is Sig. > 0.05. So Ho was accepted and Ha was rejected;

If the value is Sig. < 0.05, then Ho is rejected and Ha is accepted.

Tabel 2.

Wilcoxon Signed Rank Test Debt to Equity Ratio (DER)	
DER Sebelum – Der Sesudah	
Z	-0,119
Asym. Sig. (2-tailed)	0,906

Based on the table above, which is the result of the Debt to Equity Ratio test pre and post the merger using the Wilcoxon Signed Rank Test results in a calculated Z value of -0.119. While the Z table value obtained from the probability of 0.05 is 1.65. So that the z count is greater than the -z table ($-0,119 > -1,65$). It can be said that Ho was accepted and Ha was rejected. Judging from the Sig (2-tailed) Debt to Equity Ratio value which is greater than the probability value it has set ($0,906 > 0,05$) it can be said that the level of leverage pre and post the merger has no difference.

Tabel 3.

Wilcoxon Signed Rank Test Return On Equity (ROE)	
ROE Sebelum – Der Sesudah	
Z	-1,967
Asym. Sig. (2-tailed)	0,049

Based on the table above, it can be seen that the Return On Equity pre and post has a Z count of -1,967. While the Z table value obtained from the probability of 0.05 is 1.65. So that the z count is smaller than the -z table ($-1,967 < -1,65$). So the results of this study state that Ho is rejected and Ha is accepted.

Based on the probability value (Sig. 2 tailed), the Return on Equity test pre and post this has a significance value of 0.049 which is greater than the probability value set at 0.05 ($0,049 < 0,05$). Profitability with the calculation of Return on Equity pre and post the merger is different.

Based on the above test, it can be explained as follows. **There is no difference in the Debt to Equity Ratio pre and post the merger**, it is known that the calculated z value in the results of the study shows a figure of -0.119, which means that every debt of Rp. 1, - that the company borrows can be guaranteed at -0.119x. The result of the p-value difference test for DER has a value of 0.906 and does not meet the predetermined significant value, meaning that there is no significant difference in the debt to equity ratio pre and post the merger but it tends to increase. This can be caused by the company being taken over that has a high level of a leverage ratio as well so that it cannot reduce the leverage ratio of the companies undergoing the merger. **There is a difference in Return on Equity pre and post the merger**, it is known that the calculated z value is -1.967, meaning that every Rp.1, - of the company's shareholder equity can be processed into -1.967%. ROE is at a negative level, which means that the company is not good enough at managing the equity it has. Besides, the p-value of ROE itself is 0.049 which is smaller than the determined significant number (0.05) so that there is a significant difference in ROE pre and post the merger but tends to decrease. This can be caused by the company being taken over that has a low level of profitability so that it cannot increase the profitability ratio of the company that has the merger or that the production costs that are more increased for the products that are combined are not comparable to the products that can be sold in the initial period post the merger.

CONCLUSION

Based on the research that has been done by comparing the leverage and profitability ratios using the Wilcoxon Signed Ranks, it can be concluded.

The description of Leverage as measured by DER has fluctuated and tends to increase. The company's inability to manage debt results in a low percentage of debt repayments and the company's leverage level has increased;

The description of profitability measured by ROE has fluctuated and tends to decrease. The use of assets, both equity and debt owed by the company, is not maximized properly, which causes the percentage of profitability to decrease;

The description of the difference in leverage pre and post the merger does not have a significant difference, because in the two years of observation the p-value is more than the specified probability value (0.05), namely 0.906, and the z value is greater than the z table ($-0.119 > -1.65$); and

The description of the difference in profitability pre and post the merger has a quite significant difference because in the two years of observation the p-value is less than the set probability value (0.05), namely -0.049 and the z value is smaller than the z table ($-1,967 < -1.65$).

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