The Effect of Working Capital Ratio on Profitability of Manufacturing Companies in Indonesia

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Abstract—**This study aims to determine the influence of work capital ratio on the level of manufacturing company profitability in Indonesia basic and chemical industry sub-sector for the period of 2012 - 2017. The type of this research was quantitative with the sampling technique used is Purposive Sampling technique while for data collection in this study carried out with documentaries sourced from financial report data reported on the Indonesia Stock Exchange. Data analysis techniques used multiple linear regression. The data analysis instrument in this study was used classic assumptions quality and hypothesis in this case using partial t test and f test simultaneous. The results of the tests conducted partially showed that CR, DAR and DER had a negative and significant effect on ROA. Whereas in the second dependent variable CR and DER which had a positive and significantly influence ROE, and, DER d had a negative and significant effect on ROE.**

Keywords: *CR, DAR, DER, ROA, ROE*

I. INTRODUCTION

The manufacturing industry sector is one of the important sectors in national economic development. The manufacturing industry sector is one of the pillars of the national economy because this sector provides a significant contribution to Indonesia's economic growth. The contribution of the Indonesian business sector shows that the manufacturing industry sector remains the leading sector that provides the largest contribution to Indonesia's economic growth. The industrial sector is a major component in national economic development. This sector not only has the potential to make a large economic contribution through value added, employment and foreign exchange, but it is also able to make a major contribution in the nation's cultural transformation towards the modernization of people's lives that support the formation of national competitiveness.

The growth of industrial output and the creation of value added to output with high mastery of manufacturing technology are the main factors for increasing the economic growth of a country [1]. The manufacturing industry also plays an important role in international trade because by increasing the quality and quantity of output produced then it can increase industrial competitiveness in the global market. Another role of the manufacturing industry is the absorption of large numbers of workers which will reduce the unemployment rate.

Based on the reasons stated by previous researchers in previous studies above, the researchers tried to use two factors, namely working capital and profitability to re-test whether the results is similar with previous studies or even get different results.In accordance with the formulation of the problems that have been prepared in this study, the objectives of this study are: to analyse the effect of liquidity ratios namely Current Ratio (CR) and solvency ratios namely Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER) on Return on Assets (ROA) and Return on Equity (ROE) in the basic and chemical industry companies.

II. RESEARCH METHODOLOGY

The research variable is basically everything that observed by the researchers in order to obtain the information and conclusions [2]. This research uses the variables: Current Ratio (CR), Debt to Asset (DAR), Debt to Equity (DER), Return On Asset (ROA), Return On Equity (ROE).Population is a group of people, animals, plants, or objects that have certain characteristics to be observed and Sample is a subset of a population, the sample provides an actual representation of the population [3][4].

The population in this study is the manufacturing companies of the basic and chemical industry sub-sector for the period of 2012 to 2017 which are listed on the Indonesia Stock Exchange.Based on the population above, then it will be determined the sample as an object in this study. The sampling technique used in this study is the Purposive Sampling approach, the method of determining the sample by selecting certain samples that are assessed according to the objectives or research problems in a population [5]. The sampling criteria used are:manufacturing companies of basic and chemical industry subsector listed on the Indonesia Stock Exchange (IDX), companies that publish financial statements as of December 31 during the period 2012 –

2017, and companies that have the required data for research during 2012-2017.Based on the criteria that have been set from 2012 to 2017 with a population of 34 companies, the samples that fulfill the requirements are 15 companies.

III. RESULTS AND DISCUSSION

T test results showed that CR partially had a negative and significant effect on Return On Assets (ROA). The results of statistical tests with the t test show that the Current Ratio has a t-count of -2.022. Besides CR has a significance value of 0.003 where this value is smaller than the level of significance that has been set (α = 5%). Thus the first hypothesis that states CR has a negative effect on profitability is accepted. Thus this condition causes the level of CR significantly influence to the ROA of basic and chemical industry companies listed on the Indonesia Stock Exchange in the period 2012 - 2017. The results of this study are in line with research conducted by [5] which states that CR had a significant effect on ROA. In contrast to the results of research conducted by [6] which states that CR had a negative and insignificant effect on ROA.

Based on the t test results, the results show that t-count of the Debt to Total Assets (DAR) of -2,006 with a significance of 0.003 is smaller than the significance value that has been set (α = 0.05). Based on the results of the analysis, it can be concluded that the hypothesis that states the variable of Debt to Total Asset (DAR) has a negative effect on Return On Assets (ROA) is accepted. This is in line with the Pecking Order Theory that the higher value of the leverage of the company that is projected with the value of Debt to Asset Ratio (DAR) will cause costs such as interest costs thereby reducing the level of Return On Assets [7]. This result is not in line with the research of [8] which states that DAR had a negative and insignificant effect on ROA, the higher use of debt will be dangerous because the company will be included in the category of extreme leverage, the company that stuck in a high debt level and difficult to release the debt expense.

Statistical test results with the t test showed that partially DER has a significant effect on Return On Assets (ROA). The results of statistical tests with the t test show that DER has a value of t-count of -3.316 and a significant value is smaller than the significance level that has been set that is 0.001 <0.05. The results of the statistical t test indicate that the Debt to Equity Ratio (DER) partially a significant negative effect on the profitability of the basic and chemical industry companies. Thus the third hypothesis which states that DER has a negative and significant effect on ROA is accepted. The results of this study are in line with research conducted by [6] which states that DER has a significant effect on ROA in industrial and chemical companies listed on the Indonesia Stock Exchange in 2008 - 2010.

The partial t-test results using the SPSS 24.0 program found that the value of t-count of the Current Ratio (CR) was 2.017 with a significance value of 0.024. The CR value in this t test is smaller than the significance level of 0.05 which has been set, thus CR has a positive and significant effect on Return On Equity (ROE). Thus the fifth hypothesis which states that CR has a positive effect on profitability is accepted.The analysis of Current Ratio is influenced by several factors, one of which is the trend data of current assets and current liabilities for a period of 5 or 10 years [9]. The results of this study are in line with the research conducted by [10] and [11]which state that there was a significant relationship between CR and ROE.

In contrast to research conducted by [12][13] which state that Current Ratio (CR) had no significant effect on Return on Equity (ROE).Based on the results of the t test (partial), the results show that t-count of Debt to Asset Ratio (DAR) of 2.743 with a significance value of 0.024 is smaller than the significance value that has been set (α = 0.05). Based on the results of the analysis, it can be concluded that the hypothesis which states the Debt to Asset Ratio has a positive effect on Return On Equity (ROE) is accepted. The result of this study is in line with the results of research conducted by [14] the higher ratio of debt to total assets, the higher financial risk faced by the company, conversely the lower this ratio, the lower financial risk. This study differs from research conducted by [14] [15] that DAR had no significant effect on ROE.

The Debt to Equity Ratio (DER) has t-count of -0.342 and a significance value of 0.733 which is higher than the value of α = 0.05. The results of the statistical t test show that Debt to Equity Ratio (DER) is partially insignificant to the profitability of the basic and chemical industry companies. It means that the hypothesis which states that Debt to Equity Ratio (DER) has negative effect on Return on Equity (ROE) is acceptable. This shows that the percentage of DER of basic and chemical industry affect to the decline of company's profitability.

IV. CONCLUSIONS

The analysis and discussions that have been carried out on the analysis of Current Ratio (CR), Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER) on the Profitability of basic and chemical industry companies listed on the Indonesia Stock Exchange in 2012 - 2017, then it can be concluded that:

the results of the calculation of each variable are known that Debt to Equity Ratio (DER), Current Ratio (CR) and Debt to Asset Ratio (DAR) have a negative and significant effect on Return on Assets (ROA). So that hypotheses 1,2 and 3 are accepted, and the results of the calculation of each variable are known that Current Ratio (CR) and Debt to Asset Ratio (DAR) have a significant positive effect on Return on Equity (ROE), while Debt to Equity Ratio (DER) has a negative and significant effect on Return on Equity (ROE)), so hypotheses 4, 5 and 6 are accepted.

For further research, it is recommended to increase the number of samples and a longer observation period in order to obtain the results that close to the actual conditions.

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