The Working Capital Management and ProfitabilityAnalysis on The Leading Dairy Food Industries in Indonesia

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Abstract

The main purpose of this study is to analyze trends in the working capital management that impact the profitability of those Indonesian dairy food companies with the highest levels of sales revenue which is listed in Indonesian stock exchange.Working capital management is one of the most important financial decisions in the company that can increase the company's value. The test was adopted to examine return on equity as the dependent variable and average collection period, day payables outstanding, current ratio as the independent variables. The data were taken by using purposive sampling method with level significant of 5%. The result of multiple linear regression analysis indicated there was a positive significant impact of day payables outstanding and current ratio on return on equity Meanwhile for the average collection period was insignificant negatively impact on the return on equity. Further, in this resarch is suggested that managers in dairy food industries can optimal their return on equity by balancing between profitability and liquidity, and paying more attention on effectiveness of working capital management. In any case, working capital is a particularly important topic in industry due to the continuous development of technology and rapid changes in business environment.

Keywords: Average Collection Period, Current Ratio, Day Payables Outstanding, Effectiveness, And Return On Equity

Introduction

Working capital is the total current assets of the company as should be available to finance operations company everyday (Agnes, 2015). Company basically requires sufficient capital in conducting its operational activities. It is the company's assets that are rotated continuously in accordance with company objective.Working capital management is also important financial decisions in the company that can increase the company's value. Efficient working capital management involves planning and controlling current assets and liabilities that eliminates risk of inability to meet short term commitments and avoids extensive investment such assets (Lazaridis and Tryfondis, 2006). In the term of working capital, high levels of current assets may decrease risk of liquidity related to cash opportunity cost that invest in long term assets. However, high levels of current assets may affect negatively profitability of the company whereas low level of current assets may result in decreased liquidity and problems in operations (Afza and Nazir, 2009). This study analyzed whether working capital management is able to influence the important variables ofdairy food companies profit.

Profitability is one of the most important factors for company to maintain in a competitive environment. It refers to the possibility that the company will be successful financially. In order to measure the profitability of company’s performance, return on equity has been used in this study. Return on equity is the amount of net income returned as a percentage of shareholder equity. Return on equity measures a corporation’s profitability by revealing how much profit a company generates with the money shareholders have invested (Gibson, 2011).

The researcher used the data from ten dairy and food companies listed on the Indonesian Stock Exchange and have the largest total assets of food manufacturers in last five years from 2012 until 2016. The study is focused on the average collection period, the day payables period, and the current ratio that represent the working capital management in this research to see how much influence the average collection period, account payable period, and current ratio to the return on equity.

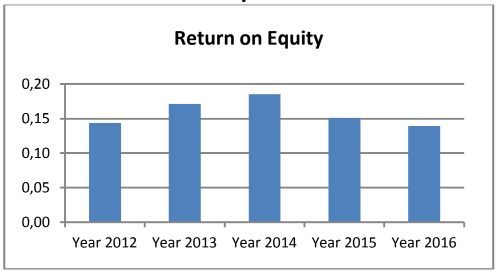
Literature Review

In the relation to the subject matter, we shall put into consideration the previous researches. The previous research (Akoto et al. 2013) studied relation between working capital management and profitability of thecompany. It showed average collection period has a negative and relationship toward return on equity, day payables period has positive but insignificant toward return on equity, and current ratio has a positive and statically significant toward return on equity. By choosing a company listed in capital market of India during 2000-2009. Rajesh and Reddy (2011) studied the effect of working capital management on profitability. Results indicated that components of working capital management are effective on performance of companies. Moreover, Gill (2010) provided the result that average collection period has negatively correlated with profitability, and day payables period has no significant effect on return on equity. Besides, Azeez et al. (2016) resulted average collection period has negative significant effect toward profitability, and day payable outstanding has positive significant effect toward profitability.

Return on Equity

The dependent variable in this research is profitability or return on equity. Itis an ability of a company or institution to make a profit within a specified period by using the asset, and the amount of net income returned as a percentage of equity’s holder. Return on equity has been expressed as one of a good measurement of profitability, therefore many researchers are used this method (Akoto et al. 2013).

Graph 1.



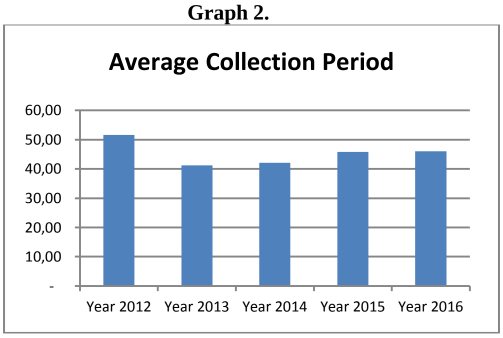
(source: secondary data from idx that has been processed by author)

From graph1,it can be seen that the industries' average of return on equity increased from 14% in 2012 to 19% in 2014, then back to 14% in 2016.

Average Collection Period

The average collection period is contrary with the day payables outstandingin short-run activities. It is an account offered by the firm or a company to their consumers. By having good management in collecting receivable are intended to reduce the length of time between the sale and the time of cash payment received. Moreover, it will be undertaken by the customers to the firm or company that give the goods or services. The aim is to reduce the arrears payment by costumers (Majeed et al. 2013).

Graph 2.



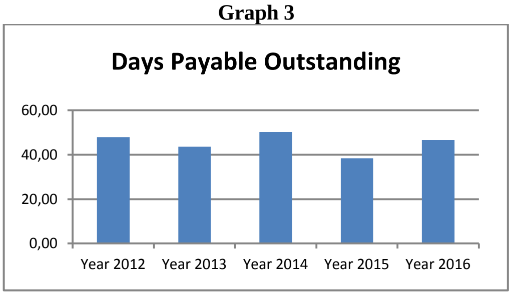
(source: secondary data from idx that has been processed by author)

From graph 2, it showed that the industries' average of average collection period is increase since 2013 from 41.23 to 46.02 in 2016.

Day Payables Outstanding

Day payables outstanding is to find how long for a firm or a company can pay their account payable (Gill, 2010). It describes how long it takes a company to pay its invoices from trade creditors, such as supplier.

Graph 3



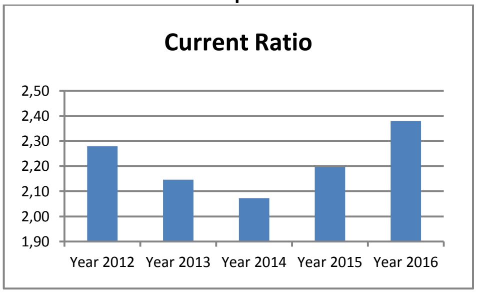
(source: secondary data from idx that has been processed by author)

From graph 3, it showed that this ratio in period 2012-2016 was fluctuated and finally increase to 46.59.

Current Ratio

Current Ratio is to measure of a company's liquidity or ability to payoff short-term liabilities, it is calculated by dividing current assets by current liabilities (Usama, 2012).

Graph 4



(source: secondary data from idx that has been processed bt author)

From graph 4, it indicated the ratio decrease to 2.07 in 2014 and increase to 2.28 in 2016.

The availability of data and limitation of time the researchers focus on conducting period 2012-2016. Based on the background above, the author decides to conduct further research with the title *"The Working Capital Management and profitability Analysis on The Leading Dairy Food Industries in Indonesian During 2012-2016"*.

Research Method

Three main hypotheses have been formulated in order to test the main research question. They were testedin all companies involved by using descriptive analysis and statistical analysis to interpret the data. The purpose of descriptive analysis is to define the condition of the company from the data acquired by the researchers. Statistical analysis is to process the data with the assist of SPSS 23 as statistical tool to run the data. Based on the statement of problem and theoretical framework above, the hypothesis that tested in this research can be stated as follows:

Hypothesis 1: there is a significant relation between average collection period and return on equity of the companies

Hypothesis 2: there is a significant relation between day payable outstanding and return on equity of the companies

Hypothesis 3: there is a significant relation between current ratio and return on equity of the companies

Hypothesis 4: average collection period, day payable outstanding, current ratio have simultaneous influence toward return on equity of the companies

Data Analysis

In this research, the population is taken from ten leading dairy food companies in Indonesia that listed in Indonesian stock exchange that have met the requirement by applying purposive sampling technique. It used cross-sectional data was taken from secondary data that published in IDX that cover the period from 2012-2016.

The method of present study is correlation to determinethe relation between different variables using correlation coefficient. The determination of square of correlation coefficient is a standard that describes the relation between independent and dependentvariable. The value of this coefficient indicates how many changes in dependent variable can be explained byindependent variable. Descriptive statistic has been used to analyze data including central and scatter indices.It is statistic of data analysis that explain with description or data picture that already submitted and make it with conclusion that applies to public or generalization.

Multiple Regression

Based on the result of assumption classic tests result itfound that the data on this research has resulted normally and indicated no multicollinearity, heteroscedasticity, and autocorrelation problems that happened. Thus it meets the requirements to perform multiple regression analysis and perform hypothesis testing. The equation formula is:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_n X_n$$

From table 1, it conclude the multiple regression equation for the dairy food companies as follows,

ROE = 0.20 - 0.1644E5ACP + 0.01DPO + 0.043CR

Where,

ACP = Average collection period

DPO = Day payable period

CR = Current ratio

Result

T-test and F-test are used in this research to conduct a hypothesis testing. The purpose of T test is to define whether each independent variable has partial significant influence toward dependent variable. The purpose of F-test is to define whether all independent variables have simultaneous influence toward dependent variable (Ghozali, 2005).

Significant Simultaneous Test (F Test)

Significant Simultaneous Test is taken by comparing the significance value of F_{table} and F_{count}. The results: if $F_{count} \leq F_{table}$, Ho accepted Ha rejected, for $\alpha \geq 0.05$, and if $F_{count} \geq F_{table}$, Ho rejected Ha accepted, for $\alpha \geq 0.05$

Where:

Ho: there is no significant impact of independent variables toward dependent variable

Ha: there is significant impactof independent variables toward dependent variable

Table 1

Anova
F = 12,280
Sig = 0.000

Source: Adjusted by Authors, processing result on secondary data SPSS 23

Based on the table 4.7 result the Fcount 12.280> Ftable 4.76with the sig. value of F test is 0.000 which is <0.05. The researcher can reject Ho and accept Ha. It means all independent variables affect significantly toward dependent variable.

Significant Partial Test (T Test)

Table 2. Multiple Regression

Coefficients[a]

		Unstandardized	Coefficients			Collinearity Statistic	
Mpdel		B	Std Error	t	Sig	Tolerence	VIF
1	(constant)	.020	.029	.694	.491		
	ACP	-.1.644E5	.001	-.031	.975	.840	1.191
	DPO	.001	.000	3.141	.003	.990	1.010
	CR	.043	.010	4.491	.000	.836	1.196

a. Dependent Variable ROE

Source: Adjusted by Author, processing by SPSS 23

The first hypothesis states that average collection period has negative insignificant toward return on equity. It can be seen from table 1 that the sig. value 0.975 > 0.05 which means Ho was accepted and Ha was rejected. Compare to graph 1and 2, it can be concluded the small increasing of average collection period on companies has no significant impact to return on equity.However the higher number of average collection period will decrease the profitability or return on equity of the company so the lower ratio is the better performance of the company.

The sig. value of day payable outstanding 0.003 < 0.05 which means Ho was rejected and Ha was accepted. It means day payable outstanding has positive significant impact toward return on equity. In this result find out that if payment to suppliers will take more time, the profitability will increase, because they can use the cash to pay other liabilities or purchase assets. Besides, the sig. value of current ratio 0.000 < 0.005 which means Ho was rejected and Ha was accepted. It also has positive significant impact toward return on equity. Therefore, the higher number of day payables outstanding and current ratio will increase the return on equity of company so the higher ratio is the better performance of company.This result is in accordance with the result of Azeez et al. (2016).

Coefficient Multiple Determination Test (R^2)

R^2 is adoptedto show how far the independent variables used in the regression equation which is able to interpret a dependent variable, and r square that has been corrected called adjusted r square will adjust if there is an additional independent variable (Ghozali, 2005).

Table3. Auto correlation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.675[a]	.456	.419	,06801	1.349

a. Predictors: (Constant): ACP. DPO, CR

b. Dependent Variable ROE

Source: Adjusted by Author, processing by SPSS 23

For the coefficient of determination, the R Square show 0.456 that means that all independent variables which are average collection period, days payable outstanding, and current ratio 45.6% influence simultaneously toward return on equity. The rest is influenced by other variables which are not examined in this research.

Conclusion and Recommendation

Working capital management is one of the most important decisions in financial management. The development of working capital of dairy and food leading companies in Indonesia during 2012-2016 experience fluctuation with increasing trend. In this research, average collection period has insignificant and negative relationship toward return on equity. The higher number of average collection period will decrease the profitability or return on equity of the company so the lower ratio is the better performance of the company. Current Ratio has positive significant impact toward return on equity. Therefore, the higher number of current ratio will increase the return on equity of company so the higher ratio is the better performance of company. Overall the working capital of the company is the position of positive current assets which are greater than the current liabilities. If the proportion of the use of current assets in working capital is lower compare to the use of current liabilities used to cover debt, it has the potential to reduce the sales and as the result it can reduce the return on equity of the companies. Besides, the result of day payable outstanding has positive significant impact toward return on equity. It means if payment to suppliers will take more time, the profitability will increase. However high day payable outstanding may indicate the companies have significant financial problem. It might be happened because the management is poor and has the cash flow problem.

It is suggested that companies' manager can obtain an optimal working capital management by balancing between profitability and liquidity. Moreover, they have to use proper strategies to manage current liabilities and assets. Managers can have appropriate policies and methods to control average collection period, day payable outstanding, and increase company's cash and to improve working capital of the company. The companies should use working capital according to business activity by selecting a funding source long term debt properly and to manage the operation of business efficiently.

Generally, managers can improve working capital of the companyand increase companies' profitability using these strategies that have been mentioned above.

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