THE EFFECT OF PROFITABILITY AND LIQUIDITY ON SHARE RETURN OF THE FOOD AND BEVERAGE COMPANIES

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ABSTRACT

The return of shares in the capital market becomes the attractiveness for investors. As one of the sectors inside the consumer goods industry in Indonesia, the subsector of food and beverage is still prospective because of the huge absorption of society to buy this product and the export performance of the companies. These reasons should make the return of the share of the companies improve. Unfortunately, the tendency of the share return from 2010 to 2017 reveals the opposite direction. Therefore, the determinants related to this return have to investigate. This study owns the purpose to examine and analyze the effect of profitability and liquidity on share return. The population in this study is the food and beverage companies listed on the Indonesia Stock Exchange between 2010 and 2017. Moreover, the samples are picked up by the simple random sampling method. The method to analyze data is the regression model with pooled data. After testing and analyzing the data, this study concludes two things. Firstly, profitability has a positive effect on the share return.

Keywords: liquidity, profitability, the share return

I. INTRODUCTION

The consumer goods industry is one of the sectors in the manufacturing industry (Hartono, 2017). As one of the sectors inside this industry, the food and beverage subsector is still attractive for the companies to enter. The attractiveness of this sector is initiated by the great potency of the domestic market in Indonesia to fulfill the primary needs and by the large capacity of the companies to export (Husin, 2015).

The attractiveness is also proven by the increase in the number of companies in this sector in Indonesia Stock Exchange from 2010 to 2017 (see Table 1). In Table 1, the number of companies at the end of 2010 was 15 and at the end of 2017 was 22. During this period, the number of companies tends to fluctuate. The information about this fluctuation is as follows:

- a. There is one delisting company named PT Aqua Golden Mississippi Tbk. (AQUA) in 2011 (Hermansyah, 2010); therefore, the number of companies at the end of this year become 14.
- b. In 2012 two additional companies appear in this sector so that the number of companies at the end of this year becomes 16. Two companies intended are one relisting company named PT Sekar Bumi Tbk. (SKBM) (Aditiasari, 2012) and one company offering its stocks for the first time named PT Tri Banyan Tirta Tbk. (ALTO) (Siahaan & Nurdiana, 2013).
- c. In 2013 and 2014, the number of companies is the same as in 2012.

- d. In 2015 PT Davomas Abadi Tbk (DAVO) is forced to remove from the Indonesia Stock Exchange (Saputra, Budiharto, & Prananingtyas, 2016). Hence, the number of companies at the end of this year is 15.
- e. In 2016 PT Budi Starch & Sweetener Tbk. (BUDI) come into this sector (IDX Fact Book, 2017) so that the number of companies is 16 at the end of this year.
- f. In 2017 there are six companies appeared in this sector so that the number of companies is 22 at the end of this year. Two of them are the companies moving to this sector: PT Bumi Teknokultura Unggul Tbk. (BTEK) and PT Inti Agri Resources Tbk. (IIKP) (Hendra, 2017). In 2017 six companies appear in this sector. Two of them are the companies moving from the agricultural sector: PT Bumi Teknokultura Unggul Tbk. (BTEK) and PT Inti Agri Resources Tbk. (IIKP) (Hendra, 2017). In 2017 six companies appear in this sector. Two of them are the companies moving from the agricultural sector: PT Bumi Teknokultura Unggul Tbk. (BTEK) and PT Inti Agri Resources Tbk. (IIKP) (Hendra, 2017). Five of them are the companies offering their shares for the first time: PT Sariguna Primatirta Tbk. (CLEO), PT Buyung Poetra Sembada Tbk. (HOKI), PT Campina Ice Cream Industry Tbk. (CAMP), and PT Prima Cakrawala Abadi Tbk (PCAR) (IDX Factbook, 2018).

Table 1. The number of food and beverage companies listed on Indonesia StockExchange from 2010 to 2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
The number of delisted companies.	0	1	0	0	0	1	0	0
The number of companies from other sectors moving to this subsector industry.	0	0	0	0	0	0	1	2
The number of companies offering the share for the first time and relisting companies.	0	0	2	0	0	0	0	4
The number of companies in this industry.	15	14	16	16	16	15	16	22

Source: Reprocessed Secondary Data From IDX Fact Book from 2011 -2018

Although the number of companies goes up during this period, the average annual share return tends to go down between 2010 and 2017 (see Figure 1). This condition is contrary to the ideal condition expected by investors: the increase in the average annual share return. Based on this gap, this study is conducted to know some determinants of share return.



Figure 1. The average annual relative share return of the existing food and beverage companies between 2010 and 2017

Source: Reprocessed secondary data from the firm performance summary

According to the results of the previous study, profitability becomes one of the determinants of share return. Unfortunately, the results are still inconsistent. There are two groups of this study based on the results. The first group contains the study showing a positive effect (Salim & Isnurhadi, 2011; Er & Vuran, 2012; Susilatri, 2013; Salamat & Mustafa, 2016; Din, 2017; Jasman & Kasran, 2017). The second one contains the studies showing a negative effect (Suherman & Siburian, 2013; Susilatri, 2013; Din, 2017; Jasman & Kasran, 2017).

Liquidity also becomes the other determinants of share return (Gharaibeh, 2014; Gunawan & Hardyani, 2014; Utami, Hartoyo, & Maulana, 2015; Yuliantari & Sujana, 2014). However, these results are still contrary. There are two groups of this study based on the results. The first group consists of the study showing a positive effect (Gunawan & Hardyani, 2014; Yuliantari & Sujana, 2014). The second one consists of the study showing a negative effect (Gharaibeh, 2014; Utami, Hartoyo, & Maulana, 2015).

These conflicting results make this study use two determinants of share return to be examined and analyzed again by utilizing the data from the food and beverage companies. The next parts of this paper contain conceptual framework and hypothesis development (see section II), the method used in this study (see section III), results and discussion (see section IV), and conclusion and recommendations (see section V).

II. CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

This section explains how profitability and liquidity affect the share return. The explanation is as follows.

a. The effect of profitability on share return

Profitability displays the capability of firms to obtain profit (Hanafi, 2017). This achievement directly shows the successfulness of management to elevate the wealth of public shareholders as the owner of the firm (Kasmir, 2013). Indeed, this achievement is positively appreciated by public shareholders so that the increase in share price happens. This argument is confirmed by Salim & Isnurhadi (2011), Er & Vuran (2012), Susilatri (2013), Salamat & Mustafa (2016), Din (2017), Jasman & Kasran (2017) who successfully prove that profitability has a positive effect on share return. By referring to this description, the first hypothesis can be declared as follows.

H₁: Profitability is expected to possess a positive effect on share return.

b. The effect of liquidity on share return

Liquidity demonstrates the capability of firms to pay their current liabilities that reach their maturity time (Hanafi, 2017). According to the trade-off theory of working capital management, when firms have high liquidity, the allocation of fund sources is more focused on current assets than fixed assets as the income generator (Gitman & Zutter, 2012). By assuming the market participants give more attention to the profit achievement, they will negatively respond to firms with high liquidity; therefore, the decrease in share price occurs. This condition is confirmed by the result of the study of Gharaibeh (2014) and Utami et al. (2015) who successfully prove that liquidity has a negative effect on share return. By referring to this description, the second hypothesis can be declared as follows:

H₂: Liquidity is expected to possess a negative effect on share return.

III. RESEARCH METHOD

This section describes four points. The first point is the type of study. The second one is the variable definition. The third one is the population and sample. The fifth one is the method to analyze the data. The explanation of each point is as follows.

a. The type of study

The use of the research hypothesis indicates that the type of study is quantitative research (Sugiyono, 2012). The type of hypothesis used is the causal hypothesis. According to Hartono (2009), this hypothesis is defined as the statement explaining how one variable causes another variable.

b. The variable definition

Variable is defined by Sugiyono (2012) as the concept with the variation of value. The variable in this research consists of dependent and independent variable. Share return has the function as the dependent variable. On the other hand, profitability and liquidity have the function as an independent variable.

• Share return is defined by Tandelilin (2010) as the reward for investors because they are brave to take the investment risk of the shares. Following one of the ways suggested by Hartono (2016), this return is calculated by the formula of relative return (RR) in the first equation as follows.

$$RR = \frac{Closing \ price \ at \ the \ end \ of \ the \ year \ t}{Closing \ price \ at \ the \ end \ of \ the \ previous \ year \ t-1} \qquad \dots \qquad (Eq.1)$$

• Profitability is measured by return on assets (ROA) at the end of the year. The use of this ratio refers to the study of Salim & Isnurhadi (2011), Er & Vuran (2012), Gunawan & Hardyani (2014), Salamat & Mustafa (2016). Following Gitman & Zutter (2012), ROA is calculated by the formula in the second equation.

 $ROA = \frac{Earnings after tax}{Total assets} \dots (Eq. 2)$

• Liquidity is measured by the current ratio. The use of this ratio refers to the study of Gharaibeh (2014) as well as Gunawan & Hardyani (2014). Following Gitman & Zutter (2012), CR is calculated by the formula in the third equation.

c. Population and sample

The population of this study is food and beverage firms. In a quantitative study, it is essential to determine the relevant number of the population before samples are picked up. Based on the observation from the existing data, the relevant population is 13 firms. Furthermore, the number of samples (n) to denote the number of population (N) is calculated by the formula of Slovin with the margin of error (e) of 10%. This formula can be met in the fourth equation as follows.

$$n = \frac{N}{1 + N e^2}$$
.....(Eq.4)

From this equation, the number of the sample (n) is $\frac{13}{1+13(10\%)^2} = 11.502 \approx 12$ firms (rounded). Additionally, twelve firms are taken by the simple random sampling method. After doing it, the names of the companies obtained are as follows. (1) Akasha Wira International Tbk. (ADES), (2) Tiga Pilar Sejahtera Food Tbk. (AISA), (3) Wilmar Cahaya

Indonesia Tbk. (CEKA), (4) Delta Djakarta Tbk. (DLTA), (5) Indofood CBP Sukses Makmur Tbk. (ICBP), (6) Indofood Sukses Makmur Tbk. (INDF), (7) Mayora Indah Tbk. (MYOR), (8) Prasidha Aneka Niaga Tbk. (PSDN), (9) Nippon Indosari Corpindo Tbk. (ROTI), (10) Sekar Laut Tbk. (SKLT), (11) Siantar Top Tbk (STTP), and (12) Ultrajaya Milk Industry & Trading Company Tbk. (ULTJ).

d. The method to analyze data

The variables-related data are analyzed by the regression model with pooling data. This model is selected because the companies still come from one subsector having similar characteristics (Nachrowi & Usman, 2006). Additionally, this model can be located in the fifth equation as follows.

 $RR_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 CR_{it} + \varepsilon_{1it} (Eq.5)$

To estimate the coefficients, this regression model uses the method of ordinary least square (OLS) (Nachrowi & Usman, 2006). As a consequence, the tests associated with the classical assumption are required to be performed (Ghozali, 2016). Furthermore, Ghozali (2016) explains the tests intended are as follows:

- (1) The normality test. The data intended to examine are residuals of the regression model. Moreover, the normality of residuals is proven by the Kolmogorov-Smirnov test. The result of this test requires the residuals of the model have to follow the normal distribution.
- (2) The homoscedasticity test. The data intended to examine are absolute residuals, ROA, and ROE. Moreover, the absence of the effect of ROA and CR on residuals is proven by Glesjer test.
- (3) The autocorrelation test. The data intended to examine are residuals. Furthermore, the absence of autocorrelation is proven by the runs test.
- (4) Multicollinearity detection. The data intended to examine are ROA and CR. The result of this detection requires that the value of the variance inflation factor (VIF) of ROA and CR be lower than 10.

IV. RESULTS AND DISCUSSION

This section describes five points. The first point is the test results of the classical assumption. The second one is the estimation result of the research model. The third one is the result of testing hypotheses. The fourth one is the discussion. The fifth one is the managerial implications.

a. The test results of the classical assumption

Table 1 presents the result of the normality test. In this table, the value of asymptotic significance (2-tailed) of Kolmogorov-Smirnov Z is 0.223. This value exceeds the significance level of 0.05; therefore, the null hypothesis stating residuals follow normality distribution is accepted. In other words, the regression satisfies the required assumption of the normality test.

	Unstandardized Residual
N	96
Kolmogorov-Smirnov Z	1.047
Asymp. Sig. (2-tailed)	.223
a Test distribution is Normal	h Calculated from data

Table 1. The result of the Kolmogorov-Smirnov test

a. Test distribution is Normal, b. Calculated from data. Source: Modified Output of IBM SPSS 19. Table 2 presents the result of the heteroscedasticity test. In this table, the probability value of t-statistic for ROA and QR is 0.5705 and 0.7061, respectively. These two value exceeds the significance level of 0.05; therefore, the null hypothesis stating residuals are not affected by ROA and QR is accepted. In other words, the regression model is free from heteroscedasticity.

		J J				
F-statistic Obs*R-squared Scaled explained SS	0.163116 0.335579 5 0.423732	Prob. F(2,93) Prob. Chi-Square(2) Prob. Chi-Square(2)	0.8497 0.8455 0.8091			
Test Equation: Dependent Variable: ARESID Method: Least Squares Date: 07/29/19 Time: 11:29 Sample: 1 96 Included observations: 96						
Variable	Coefficient	Std. Error t-Statistic	Prob.			
C ROA QR	0.415599 0.004893 -0.018167	0.072617 5.723161 0.008594 0.569319 0.048031 -0.378227	0.0000 0.5705 0.7061			

Table 2. The result of Glesjer test

Source: Modified Output of E-Views 6.

Table 3 presents the result of the autocorrelation test. In this table, the value of asymptotic significance (2-tailed) of Kolmogorov-Smirnov Z-statistic is 0.465. This value exceeds the significance level of 0.05; therefore, the null hypothesis stating the absence of autocorrelation is accepted. In other words, the regression model is free from autocorrelation.

Table 3. The result of the runs test

	Unstandardized Residual
Test Value	.0000000
Cases < Test Value	53
Cases >= Test Value	43
Total Cases	96
Number of Runs	52
Ζ	.731
Asymp. Sig. (2-tailed)	.465
a. Mean	
Source: Modified Output	t of IBM SPSS 19

Table 4 presents the result of multicollinearity detection. In this table, the value of VIF of ROA and QR is 2.050 and 2.050, respectively. These values exceed the required cut-off value of 10; therefore, multicollinearity is not present. In other words, the regression model is free from multicollinearity.

Independent	Collinearity Statistics			
Variable	Tolerance	VIF		
ROA	.488	2.050		
QR	.488	2.050		

Table 4. The result of multicollinearity detection

Source: Modified Output of IBM SPSS 19

b. The estimation result of the research model

After all of the tests related to the classical assumption are already convinced, the next action is estimating the regression model with pooling data as the research model. Besides, the regression model estimation intended can be located in Table 5 as follows.

Table 5. The estimation result of the regression model with pooling data: The effect ofprofitability and liquidity on share return

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta	_	C
	(Constant)	1.304	.118	n.a.	11.061	.000
1	ROA	.032	.013	.364	2.544	.013
	CR	154	.063	348	-2.437	.017

a. Dependent Variable: RR

Source: Modified Output of IBM SPSS 19

c. Result of testing hypotheses

Each research hypothesis is examined by the t-statistic test. This test is conducted by the comparison of the probability value of t-statistic for the independent variable with the significance level value of 0.05 to reject the null hypothesis. If this probability value is the same as or higher than 0.05, the null hypothesis is accepted and vice versa.

- i. The first hypothesis states that profitability has a positive effect on share return. This research hypothesis directly changes to the alternative hypothesis. In Table 5, the probability value of t-statistic for ROA is 0.013. This value is lower than the used significance level so that the alternative hypothesis is accepted.
- ii. The second hypothesis states that liquidity has a negative on share return. This research hypothesis directly changes to the alternative hypothesis. In Table 5, the probability value of t-statistic for CR in Table 5 is 0.017. This value is lower than the used significance level so that the alternative hypothesis is accepted.

d. Discussion

The result of testing the first hypothesis exhibits that profitability has a positive effect on share return. This positive effect shows that investors in the capital market still appreciate the companies with the ability to gain profits. The accumulation of profits shows that companies can avoid financial distress and survive for a long-term period. Therefore, this study confirms the result of the study conducted by Salim & Isnurhadi (2011), Er & Vuran (2012), Susilatri (2013), Salamat & Mustafa (2016), Din (2017), and Jasman & Kasran (2017).

The result of testing the second hypothesis exhibits that liquidity has a negative effect on share return. This negative effect confirms the trade-off theory of working capital management. The firms with high liquidity must be having low profitability and vice versa. Assumption stating that public investors tend to give more attention to the ability of firms to

get profits than attention to pay current liabilities is totally proven. This condition makes the share price drop. This result supports the result of the study of Gharaibeh (2014) and Utami et al. (2015).

e. Managerial Implication

The rise in share price is the appreciation of public investors to the companies. To achieve this appreciation, they need to generate profits. Profits can function to create a good reputation in the capital market. The existence of profits can be used as the internal funds to finance some profitable projects in the future and the tool to pay the interest of bank loan or coupon of bonds.

V. CONCLUSION AND RECOMMENDATIONS

This study has the aim to test and analyze the effect of profitability and liquidity on share return. After doing the discussion, the study concludes that profitability has a positive effect on share return whereas liquidity has a negative effect on share return.

This study has several limitations. Firstly, this study only uses two determinants of share return. Secondly, this study only uses the companies in one subsector of the manufacturing industry. Some limitations of this study open some opportunities for the next researchers who are interested in this topic. Some recommendations given to them are as follows:

- 1. The next researchers can develop their research model by using the other determinants of share return that do not exist in this study such as dividend policy, leverage, assets, turnover, firm size, market return, inflation, interest rate, gross domestic product, exchange rate, money supply, market to book value ratio, oil price, money supply.
- 2. The next researchers can exploit all manufacturing companies as the population so that the scope of the study can be wider than that of this study.

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