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The Effect of Book to Market Ratio (BMR) and Return on Equity (ROE) on Stock of Listed Consumer Goods Companies in Indonesia Over The Period 2014-2018

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Abstract

This study aims to analyze the effect of Book to Market Ratio, Return on Equity to Stock Returns in Consumer Goods Industry Sector in Indonesia during 2014-2018. The population in this study are companies engaged in the sector Consumer Goods Industry whose shares are listed on the Indonesia Stock Exchange during 2014-2018. This data was obtained from a factbook which was downloaded through the official website of the Indonesia Stock Exchange, www.idx.co.id. The samples are 33 companies for five (5) years during 2014-2018. The findings show that the Book to Market ratio (BM) has not a significant effect and has positive relationship to stock return. The Expected Book to Market ratio (FBM) has not a significant effect to stock returns. Firm size (Size) and Liquidity (Liq) as control variable also have no significant effect to stock returns.

1. Introduction

Public interest in stocks and bonds is increasing because of the wider public curiosity about conditions in the capital market (Ichsani et al., 2015). Furthermore, the capital market is a form of financial market which functions as a place to transact, sell or buy longterm financial instruments (Hanafi, 2016). One of the benefits of the capital market in general is as a means of meeting between parties who have excess funds and those who need or lack funds. In the capital market, the party (company) which requires capital is called as the issuer while the party with excess capital is called as the investor.

Many studies discuss about the analysis of Book to Market ratio (BMR) and Return on Equity (ROE). In previous studies, the results have differences, but they can complement each other.

The research which had conducted by Araújo and Machado (2018) aims to analyze the effect of expected book value (FBM) and return on equity (ROE) in explaining their effect on returns on the Brazilian Capital Market. From this study, it shows that when FBM and ROE are combined with a risk factor approach, they will result in an influence between company size and BM on liquidity in the Brazilian capital market. Furthermore, Ball et al., (2020) wrote an article on the results of their research that the book to market consists of two economically different components that are retained earnings and contribution capital. The results of the research shows that retained earnings and the ratio of book value to market value can be used to predict stock returns. It is because retained earnings and the ratio of book value to market value are good proxies for underlying earnings results (Ball, 1978; Berk, 1995).

Clubb & Naffi (2007) conducted a study which shiws that BMR has a positive influence on stock returns when the market value of equity is equal to the expected discounted cash flows which is discounted at the expected stock return and book-to-market proxy for future cash flows.

The result of the study which had conducted by Fama & French (1992), shows that stocks with a small BMR value have a higher return compared to stocks with a relatively high BMR. Furthermore, Nguyen et al., (2004) in their article examined whether there is an effect between firm size and the firm's market book value on stock returns whose companies are engaged in the technology and information sector. The result of this study shows that the above variables do not show a significant increase in return since technology stock prices in that period have decreased.

In addition to ROE, research related to the effect of price to book value (PBV) on stock returns is one of the most interesting and big issues in financial management. Many researchers have conducted research related to this matter. However, not many researchers have tested using BMR. This research is expected to contribute in the form of additional information related to stock return analysis using BMR and ROE as proxied by Expected Return on Equity (FROE). If the BMR and ROE variables as proxied by FROE are proven to have a significant effect on stock returns, other options can be used to analyze the fundamentals of a stock.

2. Literature review

2.1 Stock Return

Stock return is the rate of return from the company to investors on the funds invested. Stocks with a return value higher than the expected return value indicates that the stock's performance is good. Stock returns are obtained from dividend which is added to capital gains. The difference between expected return and realized return is a deviation which should be faced as a risk by every investor.

2.2 Book to Market Ratio (BMR)

BMR is the value or ratio which compares the book value listed by the issuer to the market value in the capital market. Furthermore, book value is the value based on the books prepared by the issuer while market value is the value or price contained in the market. The existing value in the market is formed through the mechanism of demand and supply (Jogiyanto, 2003). In order to calculate BMR, you can use the book value of equity for each share divided by the price per share.

2.3 Return on Equity (ROE)

ROE is a ratio which is usually used as a tool to calculate the size of the issuer's ability to earn profits from a certain level of capital. This ratio is a parameter of the company's profitability seen from the perspective of shareholders. The higher the ROE value proves that the level of profitability of the company is getting better.

2.4 Company Size (Size)

The size of a company is the classification of company size into large

companies or small companies. Based on the tradeoff theory, the larger the size of a company means the greater the leverage. However, it has a low risk of bankruptcy since it has a good reputation (Garcia, 2019).

2.5 Liquidity (Liq)

The size of a company is the classification of company size into large companies or small companies. Based on the tradeoff theory, the larger the size of a company means the greater the leverage. However, it has a low risk of bankruptcy since it has a good reputation (Garcia, 2019).

The level of stock liquidity is one of the components which are used as an important evaluation material in deciding an investment. The more liquid an investment object means the better the investment object since it can be disbursed or turned into cash in a short time. In addition, Yuliati (1996) defines stock liquidity as a market potential to buy and sell securities quickly and at a price range which is not too high. The liquidity of a stock can be proxied by several activities; such as, trading volume activity, stock trading frequency, or stock transaction value

2.6 The Relationship between BMR and ROE on Stock Return

A company which has a high BMR is expected to continue to experience growth in the future. It is because the market is still valuing the company underpricing. Over time, supported by good fundamental conditions, the stock price will move towards its fair value so that it can provide higher returns.

Likewise with ROE, the higher the ROE of a company so that the higher the return. It is because people will have more confidence in companies with higher ROE. In addition, the community believes that the company can manage its capital well and efficiently so that it can provide greater profits.

3. Hypothesis

Based on the theories in previous research which had conducted, it shows that BMR and ROE can be used to calculate the expected return which will influence investors in making decisions in terms of selling or buying stocks. The following are the hypotheses proposed in this study:

Hypothesis 1: Book to Market ratio (BMR) has a positive effect on stock returns in public companies in the Consumer Goods Industry sector in Indonesia.

BMR is a ratio which compares the book price with the stock price in the market. When the book value of a stock is higher than the market value (underprice), thus the stock has the opportunity to experience a price increase towards its fair value. With this increase, there is a potential for an increase in returns. In previous research, it was found that there is a significant and positive effect between BMR and portfolio stock returns (Prasetono, 2012). In addition, other studies have proven that BMR has an inversely proportional effect on ROE (Lee and Zhang, 2014). This result is supported by research which had conducted by Lewellen (1999) which shows that BMR has a significant effect on the expected stock return.

Hypothesis 2: Expected Book to Market ratio (FBM) has a negative effect on stock returns in public companies in the Consumer Goods Industry sector in Indonesia from research conducted by Clubb & Naffi (2007). In their research, they added the FBM variable and the result shows that there is a significant effect on stock returns. Furthermore, it was supported by research which had conducted by Araújo and Machado (2018) which shows that FBM has a negative impact on stock returns.

Hypothesis 3: Expected ROE (FROE) has a positive effect on stock returns in public companies in the Consumer Goods Industry sector in Indonesia.

ROE is a ratio which measures the company's capability to earn a net profit. This study used the ROE variable which was proxied by FROE. When the FROE is projected to be larger, it means that the company is expected to have a performance which will continue to improve. Investors will certainly be more motivated to invest in issuers which continue to grow. With such conditions, the demand for these stocks certainly will increase so that the share price will increase. Thus, it can lead to a potential increase in the return on these stocks. When the net income received by a company increases, it will bring an increase in stock returns received by investors since more dividends will be distributed (Arta, 2013). Thus, each investor will receive greater profits. These results are supported by research which had conducted by Araújo and Machado (2018) which shows that the FROE variable has no significant effect on stock returns, but in the same direction which is positive.

> and 2018, companies which regularly and consistently publish financial reports during the research period, and

3. Research Methods

3.1 Method

Research which discusses the analysis of BMR and ROE as proxied by FROE on stock returns had been carried out by many previous researcher. In previous studies, the results have differences, but can complement each other.

Research conducted by Araújo and Machado (2018) aims to analyze the effect of FBM and ROE in explaining their effect on returns on the Brazilian Capital Market. The results of their study explain that FBM and ROE, when combined with a risk factor approach, will result in the effect of firm size and BMR on liquidity in the Brazilian capital market.

Moreover, Ball et al., (2020) wrote an article on the results of their research that according to them book to market consists of two economically different components, namely retained earnings and contributed capital. The results of the research which have been carried out show that retained earnings and book value ratios can be used to predict stock returns. It is because retained earnings and book to market are good proxies for underlying earnings results (Ball, 1978; Berk, 1995).

Furthermore, Nguyen et al., (2004) in their article examines the effect of firm size and the firm's market book value on stock returns issued by companies engaged in technology and information. The result of this study shows that the above variables do not show a significant increase in return because technology stock prices in that period have decreased.

3.2 Population and Sample

The study used data originating from companies whose business activities were engaged in the Consumer Goods Industry whose stocks were listed on the Indonesia Stock Exchange (IDX) for the period between 2014 and 2018. This period was chosen since it is the last five (5) years so that the data is the most recent data needed in the study. The companies selected as samples should meet the established criteria that were companies whose business fields were engaged in the Consumer Goods Industry sector whose stocks were listed on the IDX between 2014 companies with financial statements which contain the elements needed in the research; such as, closing stock prices, company net income, book value,

return on equity, company size, and trading value.

3.3 Data Analysis Technique

In this study, the dependent variable was stock return while the BMR variable, ROE was proxied by ROE as an independent variable. The control variables used in this study consisted of firm size (Size) and liquidity (Liq). In addition, the control variable was used to prevent committed bias.

The model which would be applied in this study was multiple regression analysis or commonly known as multiple linear regression analysis. This regression model involves more than one independent variable or predictor. In general, the regression model for this study can be formulated as follows:

3.4 Types and Sources of Data

This quantitative analysis is to estimate the magnitude of the influence quantitatively from changes in one or several other events using Stata statistical analysis tools. Sources of data used in this study are primary data and secondary data. Primary data were obtained from direct respondents who filled out the questionnaire. And secondary data obtained from literature studies or journals.

$RET_t = \alpha + \alpha 1BM_{t-1} + \alpha 3FROE_t - Size + Liq + \varepsilon T_{max}$	(1)
RETt = $\alpha - \alpha 2FBMt + \alpha 3FROEt - Size + Liq + \epsilon_T$	(2)

Description:

Debenperoni	
BMt-1	= $\ln(Bt-1/Mt-1)$ FROEt+1 = $\lambda 0 + \lambda 1$ ROEt
FBMt+1	$=\gamma 0+\gamma 1 BMt$
Size	$= \ln(Mvt) = \gamma 0 + \gamma 1 BMtt$
Liq	$=\ln(TVt)$
εŢ	= Error

3.5 Descriptive Statistical Aanalysis

Descriptive statistical analysis is the first step in testing the data. Descriptive statistical analysis was conducted in order to determine the largest (max), smallest (min), average (mean), and standard deviation (std. dev) values of the data used.

3.6 Panel Data Regression Model Selection

3.6.1 Chow Test

The Chow test or Fstatistics test is used in the selection of models for panel data regression, whether it is better to use pooled ordinary least squares (Pooled OLS) or fixed effects model. The hypotheses proposed by the researchers for the Chow test are as follows;

H₀: Pooled Ordinary Least Square (Pooled OLS) is better than Fixed Effects Model.

H₁: Fixed Effects Model is better than Pooled Ordinary Least Square (Pooled OLS).

If the F-statistic value is greater than the table F value, then

H is accepted and H1 is rejected. It means that the fixed effects model is better than the pooled ordinary least square (Pooled OLS). On the other hand, if the F-table value is smaller than the F-statistical value, then H is rejected, and H1 is accepted. It means that the fixed effects model is not better than the pooled ordinary least square (Pooled OLS).

3.6.2 Hausman Test

Hausman test is used to choose between fixed effects or random effects models which are better used in estimating the model. The hypotheses proposed by the researcher for the Hausman test are as follows;

H₀: Random Effects Model is better

than Fixed Effects Model.

H₁: Fixed Effects Model is better

than Random Effects Model.

If the statistical chi square probability value is greater than the chi square table, then H is accepted and H1 is rejected. It means that the random effects model is better than the fixed

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effects model. On the other hand, if the statistical chi square probability value is smaller than the chi square table, then H is rejected and H1 is accepted. It means that the fixed effects model is better than the random effects model.

3.6.3 Lagrange Multiplier Test

The Langrange Multiplier (LM) test is a test conducted to select a model for panel data regression, whether the pooled ordinary least square (Pooled OLS) model or the random effects regression model is better used in estimating panel data regression. The hypotheses proposed by the researcher for the Langrange Multiplier (LM) Test are as follows;

H: Pooled Ordinary Least Square

(Pooled OLS) is better than the

Random Effects Model.

H1: Random Effects Model is better

than Pooled Ordinary Least Square

(Pooled OLS).

If the statistical LM value is smaller than the chibar square table, then H is accepted and H1 is rejected. It means that the pooled ordinary least square (Pooled OLS) is better than the random effects model. On the other hand, if the statistical LM value is greater than the chibar square table, then H is rejected and H1 is accepted. It means that random effects are better than pooled ordinary least squares (Pooled OLS).

3.6.4 Classic Assumption Test

The classical assumption test has several stages which should be passed to be able to determine the feasibility of a data, whether the data which we will use is feasible to be used as research data.

3.6.5 Hypothesis Testing

Hypothesis testing is conducted in order to understand that the hypothesis is significant or not. The hypothesis is accepted if the p value is less than the specified standard error.

4. Results and Discussion

4.1 Data Collection Result

The samples in this study were 33 companies. This sample was obtained based on the selection made by the author on companies which had listed on the BEI in the Consumer Goods Industry sector.

Moreover, the sample criteria included in the study were companies from the Consumer Goods Industry sector which were consistently listed on the Indonesia Stock Exchange for the 2014-2018 period, consistently published annual reports to the public during the research period, and had annual reports containing elements which needed in research; such as, closing stock price (market value), company's net profit, book value, ROE and trading value.

4.2 Descriptive Statistical Analysis

Descriptive statistical analysis is the first step in testing the data. Descriptive statistics are used to describe the condition of the data which has been collected briefly and systematically. The following is descriptive statistical data from the research sample.

Variable	Obs	Mean	Std. Dev	Min	Мах
Return	165	-	0.6983516	-4.317488	3.327089
		0.0671124			
BMR	165	0.7451579	0.9356136	-2.184874	4.235577
FBM	165	0.7147693	0.9888919	-3.383905	5.448105
FROE	165	0.1799697	0.2346777	-0.1694051	1.341144
Size	165	8.152237	2.411221	3.555348	13.21801
Liq	165	5.024885	3.490264	-4.60517	10.73042

Table 1 Descriptive Statistics Test

Table 1 is a descriptive

statistical table data from 33

companies which are listed on the BEI in the Consumer Goods Industry sector for the period 2014-2018. Based on the table, it shows that the BMR variable has an average of 0.7451579. The BMR variable has std.dev. of 0.9356136. This value is greater than the average value of the BMR variable. The lowest value for the BMR variable is -2.184874 while the highest value is 4.235577. It shows that the range of the largest data with the smallest data is not too far.

Based on the table above, it also shows that the FBM variable has an average of 0.7147693 with std.dev. of 0.9888919. It means that there is a long stretch of existing data. In addition, the lowest value for the FBM variable is -3.383905 and the highest value is 5.448105.

Moreover, based on the table it shows that the FRO variable has an average of 0.1799697 with std.dev. of 0.2346777. Meanwhile, the lowest value is -0.1694051 and the highest value is 1.341144. It shows that the lowest and highest values of the FROE variable are not too far.

Variable Size has an

average of 8.152237 with std.dev. of 2.411221. In addition, for the lowest value is 3.555348 and the highest value is 13,21801. It shows that the lowest and highest values of the Size variable have a wide range.

Furthermore, the Liq variable has an average of 5.024885 with std.dev. of 3.490264. Meanwhile, the lowest value is -4.60517 and the highest value is 10.73042. It shows that the lowest and highest values of Liq have a wide range.

Based on the table, it shows that the return variable has an average of -0.0671124 with std.dev. of 0.6983516. Meanwhile, the lowest value is -4.317488 and the highest value is 3.327089.

4.3 Correlation Matrix

The correlation matrix is a matrix which provides data on the value of the correlation or proximity between one variable and another. It was conducted to avoid bias which could occur due the influence of each to independent variable and dependent variable in regression modeling. Table 2 below shows the close relationship between the variables in the existing data.

Table	e 2 Correla	tion	Matrix	

	Return	BMR	FBM	FROE	Size	Liq
Return	1.0000					
BMR	0.1065	1.0000				
FBM	0.0728	0.9403	1.0000			
FROE	-0.0743	-0.2757	-0.3053	1.0000		
Size	-0.0676	-0.6377	-0.6175	0.4506	1.0000	
Liq	-0.0610	-0.3935	-0.4079	0.2917	0.7373	1.0000

Source: Stata Data Processing ver. 14

Based on the table above, it can be seen that the return variable has a positive influence on the BMR and FBM variables. The return variable has a negative effect on the FROE, Size, and Liq variables. The BMR variable has a positive effect on the FBM variable, but it has a negative effect on the FROE, Size, and Liq variables. Meanwhile, the FBM variable has a negative effect on the FROE, Size, and Liq variables. Furthermore, the FROE variable, has a positive effect on the Size variable, and the Liq variable. And lastly, the Size variable has a positive effect on Liq. The closer to 1 the correlation value between the variables, the greater the

influence or relationship between these variables. On the other hand, the closer to 0 the correlation value between variables means the smaller the relationship or influence between variables. Based on the Pearson correlation in Sarwono (2017), the correlation value between variables is less than 0.8 which means that there is no correlation between variables. In table 2 above, there is a relationship between variables with a value of more than 0.9403 that is the influence between the BMR and FBM variables. However. this condition can be overcome with Robustness Check.

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4.4 Selection of Test Panel Data Regressionn Model

4.4.1 Chow Test

Chow test or F-statistical test is used to select the model in

panel data regression. The model is between the pooled ordinary least square (Pooled OLS) and the fixed effects model (Fixed Effects Model). Table 3 below shows the results of the Chow Test which has been conducted.

	Table 3 Chow Test Result						
		Prob.	F	α (5%)	Result	Conclusion	
Model	1	.6580		.05	Prob. F > α	H₀ accepted, H₁ rejected	
Model	2	.8363		.05	Prob. F > α	H₀ accepted, H₁ rejected	
Cource: Stata	Dat	a Drococcing yor	14				

Source: Stata Data Processing ver. 14

Based on table 3, it can be seen that the value of Prob. F of both models is more than .05 so that H is accepted and H1 is rejected. Thus, for both models pooled ordinary least square (Pooled OLS) is better to use than the fixed effect model.

4.4.2 Hausman Test

Hausman test is used to determine which model is better between fixed effects or random effects models in panel data regression. It is conducted after Chow test has been conducted. The following are the results of the Hausman Test processing.

	Chi ²	Prob.	α (5%)	Result	Conclusion
		Chi ²			
Model 1	2.45	.6530	.05	Prob. Chi2 > α	Ho accepted , H1 rejected
Model 2	1.43	.8394	.05	Prob. Chi2 > α	Ho accepted , H ₁ rejected

Table 4 Hausman Test Result

Source: Stata Data Processing ver. 14

Based on table 4 above, it shows that the chi square probability value of the model used is greater than the value of the degree of confidence used, which is .05. In model 1 and model 2, the chi square probability values are .6530 and .8394, respectively. It means that in both models H is accepted and H1 is rejected. Thus, the random effects model is better than the fixed effects model.

Basically, this regression test aims to examine the effect of BMR, ROE as proxy by FROE on the company's stock returns. In this study, there are two multiple linear regression equation models which were tested by using STATA 14. From the regression equation model used, it is necessary to test

4.4.3 Outlier Test

Outlier test is an observation condition of data which has unique characteristics so that it looks different from the selection of a regression model for panel data as an estimation technique. In general, the determination of the estimation model consists of 3 models that are the common effect model, fixed effect, and random effect. The common effect and fixed effect models use the Ordinary Least Squared (OLS) approach as an estimation test model. Another case is the random effect model using the Generalized Least Square (GLS) approach as an estimation test model. From the tests which have been conducted by using the Chow Test, Hausman Test and the Lagrange Multiplier Test, it can be seen that the random effects model with the Generalized Least Square (GLS) approach is the best model in this test.

other data (Tileng, 2015). Outlier test is conducted to determine the existence of data with extreme values in research observation Bulletin of Fintech and Digital Economy (BFDE) Center for Fintech and Banking, Universitas Sebelas Maret https://jurnal.uns.ac.id/bfde

data, data with extreme values in

linear regression

No.	Company Code	D1	
9	AISA	0.0837473	
10	AISA	0.13933	
22	DLTA	0.0809487	
38	HMSP	0.1420332	
48	INAF	0.0834139	
82	MERK	0.0497865	
88	MLBI	0.02591	
98	MYOR	0.0351543	

Table 5 Outlier Test Result

Source: Stata Data Processing ver. 14

In this study, the cook's distance outlier test method was used in the testing process. If the value of cook's D1 > 4/n indicates that the data in this study is considered an extreme value (Law, 2018). In the outlier test, nine extreme data were found, as shown in table 6 above

4.4.4 Resgression Test Result

After the estimation model of the regression equation is

determined, the next step is that to regress the equations of model 1 and model 2 using STATA 14. the results From of the determination of the model, it is found that a good model used is the random effect. In this study, a robustness check is conducted in order to avoid any bias which can occur. The amount of data used is 157 data as a result of the outlier test (165 data minus 8 extreme data).

Variabel	Model 1	Model 2	
BMR	.0263753 (0.417)		
FBM		020139 (0.526)	
FROE	.0353452 (0.789)	.0409746 (0.763)	
Size	.0324705 (0.150)	.0166531 (0.453)	
Liq	0167943 (0.153)	0136243 (0.232)	
_cons	1990037 (0.219)	05127 (0.751)	
Number of obs	157	157	
R-squared	0.0171	0.0162	
Number of Firm	33	33	

Source: Stata Data Processing ver. 14

The * sign indicates the level of confidence. * indicates the level of confidence at 0.05, ** indicates the level of confidence at 0.01 and *** indicates the level of confidence at 0.001.

Based on Table 6 above, it shows that of the three independent variables, none of them proves that there is a significant effect on stock returns. Likewise, the two control variables which are used also do not prove that there is a significant effect on stock returns.

4.5 Discussion

This study is conducted to test BM and ROE as proxied by FROE on stock returns. From the study that has been conducted, it

can be seen that the BM variable does not have a significant effect on the return variable since it has a probability value of .417, as well as the FBM variable which has a probability value of .526. In addition, for the FROE variable does not have a significant effect on stock returns since the FROE variable has a probability value of .789 in model 1 and .763 in model 2. It because people think that the Consumer Goods Industry sector in Indonesia is already at mature phase with a PBV value that is too large (overprice) so that people are no longer interested in stocks

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in this sector. Thus, the demand for stocks in this sector will be low so that returns do not increase and market conditions tend to be sideways. It means that from the three existing hypotheses, there is no hypothesis which is proven to be significant or proven to have a strong influence on stock returns.

5. Conclussion and Suggestion

This study is conducted to further test the analysis of BMR and ROE as proxied by FROE on stock returns in the Consumer Goods Industry sector. The sample of this study consisted of companies whose business was engaged in the Consumer Goods Industry sector which had been listed on the IDX. The sample taken was 33 companies in the 2014-2018 period. Meanwhile, the independent variables consisted of BMR, FBM, and ROE which were proxied by FROE. Meanwhile, the control variables consisted of Size and Liq. In addition, for the dependent variable used was stock returns.

Furthermore, it can be concluded that from the three independent variables above, in fact there is no variable which proves a significant influence on stock returns. It is because of all the variables which have a statistical probability value greater than the significance value. These results are supported by research which had conducted hv Prasetiono (2012) and Harsalim (2013) which shows the BMR variable does not have a significant effect on stock returns. Market valuation which is too high for the stocks of a company that has a high book-to-market ratio makes the stock price increase. Although the number of trading volume and trading frequency which is on average each year is high compared to other industrial sectors, it does not show any significant effect on stock returns. It is because demand and supply tend to be in amounts which are not too different or can be said to be almost balanced.

For the FROE variable, it does not show a significant effect on stock returns since it has a statistical probability value of .789 and .763 in model 1 and model 2, where this value is greater than the significance value used. This result is supported by research whichhad conducted by Araújo and Machado (2018) ehich shows that the FROE variable has no significant effect on stock returns. It is because several companies in the Consumer Goods Industry sector are already in the mature phase so that investors are no longer interested in investing in these companies. People are more interested in investing in companies which are growing in the hope that returns will continue to increase. In addition, low ROE can occur when the industry involved has low profit margins. It shows that FROE information is not responded positively by capital market investors; On the other hand, investors tend to respond negatively to this condition.

Moreover, for the control variable does not prove a significant result since the statistical probability value for the size variable is .134 and .132 respectively for model 1 and model 2. Meanwhile, for the Liq variable it has a statistical probability value of .153 in the model 1 and .232 in model 2. Firm size has a positive effect on stock returns. The larger the size of a company means the greater the stock return which will be received by each investor. This result is supported by research which had conducted by Mar'ati (2013) which shows that firm size is not significant to stock returns. It is because investors tend to prefer stocks which come from companies with a size that is not too large and still in the growth stage with the hope that the returns to be obtained will continue to increase. In this study, company size is proxied by market capitalization, where the amount of market capitalization does not encourage investors to buy stocks from the issuer.

In addition, in this study it is found that the company's liquidity variable (Liq) does not have a significant effect and has a negative relationship to stock returns. Parida (2015) shows that liquidity does not have а significant effect on stock returns. In this study, liquidity is proxied by trading value where the trend of stocks in the Consumer Goods Industry sector tends to be in a sideways state so that the returns obtained have not experienced a continuous increase like when the

market is in a bullish state. Based on the description which has been presented above, it can be concluded that the three dependent variables and the two control variables do not show a significant effect on stock returns.

5.2 Research Limitations

The limitations of this study are that this study focuses on analyzing BMR and ROE as proxied by FROE on stock returns, so that other factors that can be used to analyze stock returns are not considered in this study; This study uses a sample of data in the form of companies operating only in the Consumer Goods Industry sector in the 2014-2018 period, so it does not consider companies from other industrial sectors and in other periods, thus, the data used is still too narrow; then the theory that is included in this study is still too few and less comprehensive, this is because of the limited literature available.

5.3 Research Suggestions

Suggestions that can be given are, first, basically there are many factors that can affect market returns, not only the factors in this study, but also influenced by other factors, such as ROA, DER, leverage, and so on; second, future research may involve factors as independent other variables in the study, it is necessary expand research involving to technical factors related to economic conditions in Indonesia. This is considering that the economic conditions in Indonesia can be used as information in making investment decisions (sell/buy/hold) in the Indonesian capital market; Furthermore, based on this research, it indicates that BMR can continue to be used to conduct fundamental analysis before deciding to buy a stock.

5.3 Research Implication

The implications of this research can be used for investors, this research is expected to provide additional information for investors to find out the analysis of BMR, FBM, ROE proxied by FROE on stock returns and for is academics, this research expected to be used as literacy material so that it can add insight into knowledge related to the analysis of BMR, FBM, ROE as proxied by FROE on stock returns.

REFERENCES

Arta Wibawa. (2013). " Pengaruh Kinerja

Keuangan Terhadap Return Saham Perusahaan Food and Beverages di Bursa Efek Indonesia", Skripsi, Manajemen Universitas Udayana.

Ball, R., Gerakos, J., Linnainmaa, J. T., & Nikolaev, V. (2020). Earnings, retained earnings, and book- to-market in the cross section of expected returns. Journal of Financial Economics, 135(1), 231–254.

Chan, L. K., Hamao, Y., & Lakonishok, J. (1991)."Fundamentals and stock returns in Japan". Journal of Finance, 46, 1739 – 1789.

Clubb, C., & Naffi, M. (2007). The usefulness of book-to-market and ROE expectations for explaining UK stock returns. Journal of Business Finance and Accounting, 34(1–2), 1–32. <u>https://doi.org/10.1111/j.1468-5957.2006.00662.x</u>

Cordeiro da Cunha Araújo, R., & André Veras Machado, M. (2018). Book-to-Market Ratio, return on equity and Brazilian Stock Returns. RAUSP Management Journal, 53(3), 324–344.

Fama, E. F., & French, K. R. (1992). The Cross-Section of Expected Stock Returns. The Journal of Finance, Vol. XLVII, No.2.

Garcia, R. R dan Budria, Santiago. (2019). The impact of supply-side factors on corporate leverage. International Review of Financial Analysis, Vol. 64, 2019: 262-272.

Hanafi, Mamduh M. (2016). MANAJEMEN KEUANGAN Edisi 2. Yogyakarta: BPFE YOGYAKARTA.

Harsalim, Novita. (2013). Pengaruh Market Risk, Size, Book To Market Ratio, dan Earnings Price Ratio Terhadap Return Saham Sektor Miscellaneous Industry di BEI Periode 2006-2012. Jurnal Ilmiah Mahasiswa Universitas Surabaya Vol. 2 No.2.

Ichsani, S., & Agatha R. S. (2015). The Effect of Return on Equity (ROE) and Return on Investment (ROI) on Trading Volume. Procedia – Social and Behavioral Sciences (Vol. 211).

Jogiyanto H. M. (2003). Teori PORTOFOLIO dan ANALISIS INVESTASI Edisi 3. Yogyakarta: BPFE- YOGYAKARTA.

Lee, W.J & Y. Zhang. (2014). Managerial Political Spending Choice and Earnings Management. China Accounting and Finance Review 16 (2), 155-170.

Lewellen, J. (1999). The time-series relations

among expected. 54, 5–43.

Mar'ati, Fudji Sri. (2013). Pengaruh Firm Size Terhadap Return Saham Pada Perusahaan Manufaktur Yang Tercatat Di Bursa Efek Indonesia Periode 2004-2009. Among Makarti Vol.6 No.12.

Nguyen, Q. N., Fetherston, T. A., & Batten, J. A. (2004). Size and Book-To-Market Effects in the Returns on Information Technology Stocks. In Research in Finance (Vol. 21).

Parida, Ela. (2015). PENGARUH PROFITABILITAS, LEVERAGE DAN LIKUIDITAS TERHADAP RETURN SAHAM (Perusahaan Property dan Real estate yang Terdaftar di Bursa Efek Indonesia Tahun 2013- 2015). Repository Universitas PGRI Yogyakarta.

Prasetiono, D.D., (2012). Analisis pengaruh firm size, book to market ratio, price earning ratio, dan momentum terhadap return portofolio saham, Diponegoro Journal of Management, Vol 1 : 212-225.

Yuliati, et. al. (1996). Manajemen Portofolio dan Analisis Inves tasi. Yogyakarta: Andi.