THE ANOMALY ANALYSIS OF SIZE EFFECT TOWARD THE INCREASING STOCK RETURN OF MANUFACTURING COMPANY REGISTERED IN INDONESIA STOCK EXCHANGE

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ABSTRACT

The study aims to analyse the anomaly of size effect toward increasing return stock on manufacturing company listed in Indonesian Stock Exchange. The data used in study is secondary data which is finance ratio of big scale manufacturing company enlisted in Indonesian stock exchange of 2013-2017, The study applies purpose sampling method. Based on the sample criteria, there are 25 chosen big scale manufacturing company as the object of study. The classification of samples follows the company's median enlisted on the study. The first result of study reveals that the stock price gives positive and significant impact toward the return stock on big scale Manufacturing Company. Secondly, the price to book ratio gives negative and significant impact toward the return stock of big scale Manufacturing Company. The third result shows that the debt to ratio equity does not impact the return stock in big scale Manufacturing Company.

Keywords: stock price, price to book ratio, debt to equity ratio, return stock.

BACKGROUND OF STUDY

Stock market plays important role in economic development of a country. It is also an additional alternative for people to commence infestation (Husnan, 2001:4-5). The unexpected movement of stock market will result in untreated situation of infestation, the received return stock will not achieve the target. in the other hand, the faster new information is received, the more efficient stock market will be.

There had been many studies about stick market efficiency applied in many countries especially Indonesia whereas the studies stated that the stock market condition of Indonesia is not an efficient market, (Audina and Laturette, 2017). The characteristic of unhealthy stock market is the stock price that does not reflect information existence; it will prevent the investor to get profit from current information, (Farma and French, 1995). Thus, it is very important for investors to understand the anomaly of a stock market. one of anomaly used in this study is size effect.

Size effect depicts the firm's size of a company. Size effect could be derived from the number of capitals, the owned total assets or total sales, and market capitalization. In this study, big scale Manufacturing Company is used to analyse the size effect. The company has big earning with slow development ratio, because the previous earning is already high enough to be higher. Farma and French (1995) found that firm's size affect profitability.

The amount of return stock available on stock market is affected by several factors, the first factor is stock price whereas the higher stock price is, and the higher return stock will be (Bringham and Houston, 2010:7). The second factor is price to book value ratio (PBV), it is the market ratio used to measure the stock price performance toward its book value (Ang, 1997). The higher price to book value ratio is, the higher attraction for the investors to invest their money on the company will be and it will provide higher return stock, Ang (1997). The third factor is debt to equity ratio (DER). Debt to equity ratio reflects the availability of a company to fulfil their duty. The higher debt to equity ratio is, the higher risk taken by the company will be (Kasmir, 2014:158).

THEORETİCAL FRAMEWORK

The Market Efficiency

Fama (1970) stated that the market efficiency, based on the type of information, could be formed into three types, they are past information, current publishing information, and private information. Fama and French (1995) also stated that there are three types of information which are weak efficiency market, medium efficiency market, and strong efficiency market.

Size Effect

The size of a company reflects the firm's size of it (Sugiarto, 2011), it could be reflected by the amount of capitals used by the company, total assets, and earned total sales. Fama and French (1995) also stated that, partially, firm size significantly affects return stock.

Signalling theory

The theory is related to decreasing information asymmetry between both parties (Spence, 2002). The asymmetry of information could be decreased if the sender of information sends positive signals to the receiver. The positive signals will turn the investors and stakeholders increase their Bank value and they will make profitable decision for the company (Whiting and Miller, 2008).

The Effect of Stock Price toward the Return Stock on Big Scale Manufacturing Company

The change of stock price is determined by the strength of demand and offer occurred in stock exchange, the more investors infested their money on the company, the more expensive price stock will be. When the stock price is increased, the investors will sell the stock and the price stock will be crawling down. the higher stock price is, the higher profit from return stock will be (Brigham and Houston, 2010:7)

Based on the explanation above, the hypothesis formula will be:

Hypothesis 1: the stock price affects positive impact toward return stock on big scale manufacturing company.

Price to Book Value Ratio toward Return Stock on Big Scale Manufacturing Company

Price to book value ratio is the market ratio used to measure the stock price performance toward its book value, Arista (2012). The increasing price to book value ratio reflect the successfulness of a company in developing values for stakeholders,(Weston and Bringham, 2005: 306). The excellent value condition of a company is a signal to attract investors that will increase the return stock of the company, Ang (1997).

The study conducted by Widodo (2002), Arista, and Astohar (2012) stated that price to book value gives positive and significant impact toward return stock. study by Fitriani (2001). Winarto (2007), and Ganto et al (2008) provides different result, they stated that prive to book value gives negative impact toward return stock.

According to the explanation and previous studies above, the hypothesis formula will be:

Hypothesis 2: Price to book value ratio gives positive impact toward return scale on big scale manufacturing company.

Debt to Equity Ratio Impact toward Return Stock on Big Scale Manufacturing Company

Debt to equity ratio is a comparison ratio between total debt and equity of the company. the higher debt ratio is, the higher risk of the company to face liquidity will be. The company that use debt in normal way is a characteristic of credible company, if the company uses debt in abnormal way, it will be a bad signal for investors to go over the company (Sakti, 2010). The condition will decrease the return stock of the company (Kasmir, 2014:158)).

Study conducted by Gill et al. (2010), Rafique (2012), Sakti (2010), Acheampong et al. (2014), Gunadi and Kesuma (2015), and Sudarsono and Sudiyatno (2016) shows that the debt to equity ratio give negative significant impact toward return stock. The study by Martini et al (2012), Komala and Nugroho (2013), and Gharaibeh (2014) provide different result, they stated that debt to equity ratio does not give any impact to return stock.

According to the explanation and previous studies above, the formula of hypothesis will be, as follow:

Hypothesis 3: Debt to equity ratio gives negative impact toward return stock on big scale manufacturing company.

RESEARCH METHOD

Research Design

The research uses quantitative study while the design applied in this study is causal design. the population used in this study is manufacturing company listed in Indonesian Stock Exchange (IDX).

Data and Sample

The data used in this study is secondary data which is finance data recorded in Indonesian Stock Exchange (IDX) in 2013-2017, the data is achieved from www.idx.co.id. Based on the population, the determination of sample is using purposive sample. The criteria of the sampling are, as follow:

1. The big scale manufacturing company registered in Indonesia Stock Exchange from 2013 to 2017 period.
2. The big scale manufacturing company that possess complete finance report and clear stock price from period of 2013 to 2017.
3. The big scale manufacturing company that has positive return stock value from 2013 to 2017.

Based on sample criteria, there are 25 chosen manufacturing company with big scale. The determination in to two categories are based on the median of firm size, they are the size effect on small scale manufacturing company and size effect on big scale manufacturing company.

Research Variable

According to the research question and hypothesis, there will be two types of variables applied in this study which are exigent and endogen variables. The explanation is provided below, as follow:

1. Independent variable (exigent) used in this study is stock price (HS), Price to book ratio (PBV), Debt to equity ratio (DER).

2. Dependent variable (endogen) in this research is return stock (RS).

Operational Definition and Variable Measurement

The definition of measurement in this study is, as follow:

1. Size effect

The size of a company determines the firm's size of a company (Sugiarto, 2011). The ratio of a company is symbolized as SIZE, as follow:

$SIZE_t$ = ln (Total $Asse_t$) ....(3.1)

2. Stock price

Price stock is the price of per sheet stock published by stock exchange which is determined by both demand and offer of the corresponding stock in stock market (Jogiyanto, 2014:167). the stock price used in this study is closing stock price.

3. Price to book value (PBV).

It is the comparison of market value and company's book value, Arista (2012). here is the formula to determine price to book value ratio, according to Jogiyanto (2014:167), as follow:

PBV = Market Value / Book Value…………………………………………..(3.2)

4. Debt to equity ratio (DER)

This ratio shows the ability of company to pay all debt by using the finance from equity value (Warsono, 2013). The formula to determine debt to equity ratio according to Kasmi (2014) is provided below, as follow:

DER = Total Debt / Total Equity ……………………………….……………(3.3)

5. Return stock

Return stock is known as fee that could be a profit or lost that will be forced to be received as the result of decision making of infestation on the corresponding stock, Jogiyanto (2014:236). the formula to find return stock value is provided below, as follow:

$R_{it} = (P_{it} - P_{it-1}) / P_{it-1}$ ……………………………………………………….(3.4)

Note:

R_{it} = Return stock from i- company during t- period
P_{it} = Price stock from i- company during t- period
P_{it-1} = Price stock from i- company during t-1 period

Research Model

The basic and equation model used in this research are displayed below, as follow:

$R_{it} = \alpha_0 + \beta_{HS} + \beta_{PBV} + \beta_{DER} + e_{it}$

Note:

R_{it} = Return stock from i- company during t- period
β_{HS} = Price stock of small scale manufacturing company
β_{PBV} = *price to book value* of big scale manufacturing company
β_{DER} = *debt to equity ratio* of big scale manufacturing company

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RESULT OF RESEARCH HYPOTHESIS TEST

Description of Result Analysis

The total of samples used in this study are twenty five companies which consist of twelve basic and chemistry industry sectors, seven mixed industries, and six consumable products industries. here are the list of all industries that include as samples of study.

Table 1. The list of big scale manufacturing companies registered in Indonesian Stock Exchange of 2013-2017.

No.	Code	Company Name
Basic and Chemical industry sector		
1	SMCB	Holcim Indonesia Tbk
2	TBMS	Tembaga Mulia Semanan Tbk
3	BRPT	Barito Pasific Tbk
4	UNIC	Unggul Indah Cahaya Tbk
5	AKPI	Arga Karya Prima Industry Tbk
6	FPNI	Lotte Chemical Titan Tbk
7	IPOL	Indopoly Swakarsa Industry Tbk
8	TRST	Trias Sentosa Tbk
9	CPIN	Charoen Pokphan Indonesia Tbk
10	JPFA	Japfa Comfeed Indonesia Tbk
11	FASW	Fajar Surya Wisesa Tbk
12	SPMA	Suparma Tbk
Mixed Industry Sector		
13	ASII	Astra International Tbk
14	BRAM	Indo Kordsa Tbk
15	GJTL	Gajah Tunggal Tbk
16	IMAS	Indomobil Sukses Internasional Tbk
17	ADMG	Polychem Indonesia Tbk
18	POLY	Asia Pasific Fiber Tbk
19	TFCO	Tifico Fiber Indonesia Tbk
Consumable Industry Sector		
20	INDF	Indofood Sukses Makmur Tbk, PT
21	MYOR	Mayora Indah Tbk
22	KAEF	Kimia Farma (Persero) Tbk
23	KLBF	Kalbe Farma Tbk
24	TCID	Mandom Indonesia Tbk
25	UNVR	Unilever Indonesia Tbk

The descriptive statistic displayed a data from minimum and maximum average value perspective, mean and devastation standard from variable research, it is the stock price, price to book value, and debt to equity ratio. the table below provides statistic descriptive information, as follow:

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Table 2. The statistic descriptive of big scale manufacturing companies registered in Indonesian Stock Exchange of 2013-2017

	N	Minimum	Maximum	Mean	Std. Deviation
Price	125	50.0000	38800.0000	3560.288000	6833.0230839
Return	125	-.0070	8.9950	.094629	.8031355
PBV	125	-.1000	71.5900	4.518320	12.8695682
DER	125	-2.7500	10.1200	1.296960	1.4871353
Valid N (listwise)	125				

Source; Managed by Researcher

Table 1 provides information of statistic descriptive from twenty five of big scale manufacturing companies for five years. The stock average value is 3.560,28. The average value of price to book value ratio is 4.5183. The average value of debt to equity ratio is 1,296. The average value of return stock is 0,0946.

Result of Research Hypothesis Test

The information of data management and analysis are provided in table below:

Table 3. The result of F_{Test}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.884	3	3.295	5.687	.001[b]
	Residual	70.100	121	.579		
	Total	79.983	124			

a. Dependent Variable: Return

b. Predictors: (Constant), DER, HARGA, PBV

Source: Managed by Researcher

The result of Farithmatic displayed in table 4.2 explains the effect of stock price, price to book value ratio, and debt to equity ratio toward the return stock of big scale manufacturing company in 2013-2017, the value is 5,687 within signification of 0,001. The result shows that the signification value is below 0, 05. Thus, the regression model could be used to predict the variable of return stock.

Table 4. R^2 Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.352[a]	.124	.102	.7611405

a. Predictors: (Constant), DER, PRICE, PBV

Source: Managed by Researcher

The result of R2 displayed in table 4.3 explained the effect of stock price, price to book value ratio, and debt to equity ratio toward the return stock of big scale manufacturing company in 2013-2017, the value is 0,124. It means that the effect of stock price, price to book value ratio, and debt to equity ratio toward the return stock is 12,4%. Meanwhile, the other 87,6% is affected by another variables that could be analysed on future research.

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Table 5. Regression Analysis Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.074	.097		-.769	.443
	HARGA	6.149E-005	.000	.523	4.049	.000
	PBV	-.027	.008	-.425	-3.237	.002
	DER	.054	.047	.100	1.143	.255

a. Dependent Variable: Return
Source: Managed by Researcher

The Impact of Stock Price Toward Return Stock in Big Scale Manufacturing Company

Hypothesis 1 stated that the stock price gives positive impact to return stock in big scale manufacturing company. The formula used to test the hypothesis is provided on table 4.5. The test result shows that there is a positive impact for about 6,149 between price stock and return stock within p value if 0,000, it means that the increasing value is 6,149. Based on the explanation above, the H1 is accepted and the result of this study support the corresponding theory which stated that the higher price stock is, the profit taken from return stock will be higher as well, (Brigham and Houston, 2010:7).

The Impact of Price to Book Value Ratio Toward Return Stock in Big Scale Manufacturing Company

Hypothesis 2 states that price to book value ratio in large-scale manufacturing companies has a positive effect on stock returns. The equation model used to test this hypothesis can be seen in Table 4.5. The results of this test indicate that there is a negative influence between price to book ratio on stock returns of -0.027 with a p value of 0.002. This shows that a large decrease of -0.027 at the price to book value ratio will reduce stock returns. Based on the description above, H1 is rejected, where price to book ratio in large scale manufacturing companies has a negative and significant effect on stock returns. These results indicate that the value of the price to book value ratio directly affects the amount of stock returns received by investors. The results of this study are in line with the research conducted by Fitriani (2001), Winarto (2007) and Ganto et al. (2008).

The Impact of Debt to Equity Ratio Toward Return Stock in Big Scale Manufacturing Company

The third hypothesis which stated that debt to equity ratio gives negative impact for big scale manufacturing company. The formula used to test this hypothesis is provided in table 4.5. the result of analysis shows that there is no impact between debt to equity ratio and return stock value of 0,054 within p value of 0,225. Based on the explanation above, H1 is rejected. the result shows that the variable of debt to equity ratio is not applicable as strong characteristic for investors in infesting their inventories. there are another factors used by investors in infestation process. the result is supported by previous study conducted by Martani et al (2012, Komala and Nugroho (2013), and Gharaibeh (2014).

CONCLUSION

1. The price stock gives positive and significant impact toward return stock on big scale manufacturing company.

2. The price to book value ratio gives negative and significant impact toward return stock on big scale manufacturing company.
3. The debt to equity ratio gives zero impact toward return stock on big scale manufacturing company.

RESEARCH FINITE

The research is only applicable for big scale manufacturing company that achieved go public badge registered on Indonesian Stock Exchange of 2013-2017. Not all manufacturing company could use the result of this study.

SUGGESTIONS

1. The sample used in future research must include all industries registered iin Indonesian Stock Exchange.
2. It is suggested to conduct the research in stable economic condition.
3. The situation of social and politic need to be considered as important factor that could decrease the amount of infestation.

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