Book Value, Earning Per Share and Stock Price

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Abstract

The purposes of this research were to examine: (1) The Effect of Book Value (BV) on Stock Prices, (2) The Effect of Earning Per Share (EPS) on Stock Prices, (3) The Effect of Book Value (BV) and Earning Per Share (EPS) on Stock Prices. Book Value (BV) and Earning Per Share (EPS) have an important role in stock prices. This research used secondary data from the annual financial statements of industrial sector companies listed on the Indonesia Stock Exchange for the period of 2018-2020 by using the purposive sampling method. There were 34 companies which fulfilled the sample criteria. This research used panel data regression analysis method. The results showed that Book Value (BV) had no effect on stock prices, while Earning Per Share EPS did. Meanwhile, simultaneously, both Book Value (BV) and Earning Per Share EPS had an influence on stock prices.

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1. Introduction

One of the effective means of accelerating growth in companies and macroeconomic activities is the capital market. Financial instrument in the capital market functions to regulate the transfer of funds from the public to the productive sectors. One of the instruments in the capital market is stocks. Companies that issue it expect their performance to increase. Stocks which are wanted by the investors are the ones having good fundamental values, widely traded and the prices are rising, thus cause a market reaction (Putriana, Artati, & Utami, 2018). The market reaction will be stronger for the earning announcements of companies that do not perform Income Smoothing than for those doing it.

Investments, especially in stock securities, surely the investors must think rationally in dealing with trading in the capital market. In general, the capital market is defined as an organized financial system (Rahmat, 2018). An investor does various ways in order to get the desired return by conducting his own analysis of the trading behavior of a stock or by using the facilities provided by analysts in the capital market, for example dealers, brokers and investment managers. The behavior of stock trading can determine the pattern of stock price behavior in the capital market. (Gunadi & Kesuma, 2015).

The price behavior on the stock will determine how much return will be received by the investors. They generally use fundamental analysis techniques to assess company performance to estimate returns. Fundamental analysis is the cornerstone of investment. The biggest part of fundamental analysis involves digging up financial statements and performing quantitative analysis. These things involve income, expenses, assets,

liabilitiesand all other financial aspects of the company to gain insight into the future performance of the company (Drakopoulou, 2016).

This fundamental analysis states that every investment instrument has a strong foundation, which is the intrinsic value that can be determined through a very careful analysis of the current conditions and prospects in the future (Masruri Zaimsyah, 2019). There are a number of basic factors which can cause stock prices to rise or fall, in which they are internal factors and external factors.

Internal factors are factors that arise from within the company in the form of policies taken by the management, thus they can change the fundamental things in the company, such as acquisitions, mergers, rights issues or divestments. Meanwhile, external factors come from outside the company and are difficult to overcome, such as problems related to macroeconomics and these factors are more dominant in influencing the stock prices.

Among several factors, the most highlighted ones are the level of cash dividends, debt ratio levels, book value ratios and the company's net profit level. The company's performance is also one of the things which affect stock prices, because it is used as a reference for investors and fundamental analysts in conducting studies on company shares (Dwiyanto, 2021).

Information from a company's financial statements can be a medium for the investors as a fundamental factor for estimating the company's stock price (Purwaningrat, 2014). The ratio in this research is to analyze how much the influence on stock prices, which are the profitability ratio proxied by Book Value (BV) with Earning Per Share (EPS).

The object of this research was the industrial sector of consumer goods companies listed on the Indonesia Stock Exchange. This sector has a very strategic role in the effort to prosper people's lives, where the products are indispensable for daily needs. The phenomenon which would be studied was about the causes of stock price fluctuations coming from profitability management.

Manufacturing companies are companies that are engaged in processing raw materials into semi-finished or into finished goods which can be processed or used directly by consumers. Manufacturing companies listed on the Indonesia Stock Exchange are divided into three types, and they are the basic and chemical industry sector, the various industrial sectors and the industrial sector of consumer goods.

In this research, the researcher chose the industrial sector of consumer goods because these manufacturing companies produce the basic needs which are needed the most by the community in line with the increasing of population growth in Indonesia. The sub-sectors of these manufacturing companies are the ones engaged in food and beverages, cigarettes, pharmaceuticals, cosmetics, and household goods. These companies have high operating activities which cause them must be able to manage each of their activities in order to gain profits and be able to maximize profitability.

The performance of the Composite Stock Price Index, the Indonesia Stock Exchange was still under pressure and decreased by 12.13% at the end of 2019. The movement of the Composite Stock Price Index was restrained by concerns of market participants from the increasingly widespread spread of the Co-Vid-19 virus. They were concerned that the virus outbreak would further disrupt the global economic growth. The basic and chemical industry index became one of the sectors that experienced the deepest decline of up to 21.24%.

The food & beverage sub-sector industry also often becomes the focus and gives the largest contribution to the growth of the manufacturing industry sector as well as to the economic growth in Indonesia. This makes this industry is considered to have bright prospects in the future because it belongs to the indispensable need. However, in the

conditions of the Co-Vid-19 pandemic, it is not only the food and beverage sub-sector that is needed, but also the need and demand for products from several pharmaceutical sub-sector companies has increased such as medicines, body supplements, health equipment and so on.

Book Value (value/book price per share) basically represents the total assets/equity owned by the company. Normally, the book value of a company will continue to rise along with the increase in company performance and vice versa, thus it is important to determine the capacity of a stock price and in determining whether or not it is fair in the market.

Therefore, it can be concluded indirectly that the book value has an effect on stock prices (Tryfino, 2009: 10). Normally, the book value of a company will continue to rise along with the increase in company performance and vice versa, thus it is important to determine the capacity of a stock price and in determining whether or not it is fair in the market (Putriana et al., 2018).

Earning Per Share (EPS) is the provision of benefits given to shareholders from each share owned (Fahmi, 2012: 96). It can be used by investors as information on the company's net income which is ready to be distributed to company shareholders (Tandelilin, 2010:374). Several researches have been conducted previously to see the effect of the Earning Per Share (EPS) variable on stock prices. The results showed that this variable has an influence on stock prices (Mawardi, 2009; Setianingrum, 2009; Kusumawardani, 2011; Patriawan, 2011; Ramadhan, 2009). However, there are also researches showing that Earning Per Share (EPS) variable has no effect on stock prices (Permana, 2009). Based on those, it is proven that there are inconsistencies in the research results. (Suselo, Djazuli, & Indrawati, 2015).

Earning Per Share (EPS) is the provision of benefits given to shareholders from each share owned. It is a ratio that measures how much net income is for each share. Meanwhile, according to Tandelilin (2010:14) explained that Earning Per Share (EPS) can show the company's net profit which is ready to be distributed to company shareholders. It describes the profitability generated by the company for each shareholder. The higher the EPS value, the higher the profit and the possibility of increasing the amount of dividends received by shareholders, (Alfiah & Lestarinimgsih, 2017).

Stock is a sign of surrender or ownership of a person or entity in a company. The purpose of investing is surely to get profits, both capital gains and dividends. However, in predicting profits, we need to take into account the movement of the company's own shares in the market. The stock price is unpredictable, because it can go up and down at any time. There are at least three kinds of stock price movements according to (WBBA & Pratomo, 2013), they are:

1. Bullish, this is where the stock price rises continuously from time to time. This can happen because of various reasons, in which they could be because of global financial conditions or company management policies.
2. Bearish, this is a condition where stock prices fall continuously and harm investors. Those who own these shares can make sales at low prices and lose or they can also make a repurchase if there is accurate information about the stock prices in the future.
3. Sideways, this is a condition in which the stock price is stable. It is said to be stable because the stock price moves up or down, thus it forms a horizontal chart from time to time.

The stock price is the value of the stock certificate reflecting the wealth of the company which issues the shares, where changes and fluctuations are largely determined by the forces of supply and demand that occur in the stock market (secondary market). The stock price has its own important value for the company. If the stock price of a company is

high then this provides an opportunity for the company to get additional investment from investors because of its stock price increase. For investors, if the stock price of a company continues to increase, then they will conclude that the company has a good performance (T et al., 2015).

The hypotheses in this research were as follows:

Ha1 : Book Value (BV) had an effect on stock prices

Ha2 : Earning Per Share (EPS) had an effect on stock prices

Ha3 : Book Value (BV) and Earning Per Share (EPS) simultaneously affected the stock prices

2. Research Method

This research used quantitative research by testing hypotheses through measuring research variables with numbers and analyzing secondary data using statistical procedures. This study examined the effect of the independent variables (Book Value and Earning Per Share) on the dependent variable (stock prices). The population in this study consisted of all the industrial sector of consumer goods companies listed on the Indonesia Stock Exchange (IDX) for the 2017 to 2020 observation period. The sampling was done by purposive sampling method with a technique based on consideration which was a non-random type of sample selection whose information was obtained using certain considerations. The total sample used in this study was 38 issuers. Financial report data were obtained from the Indonesia Capital Market Directory and www.idx.go.id.

Before doing the hypotheses, the researcher examined the data instrument using normality test, multicollinearity test, autocorrelation test and heteroscedasticity test. To find out whether there was a significant effect of the independent variable on the dependent variable, a multiple linear regression model was used, which was formulated as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + e$$

Information:

Y   : stock price

A   : Constant

β_1 , β_2 : Regression Coefficient

X1   : Book Value

X2   : Earning Per Share

E   : Error Standard

The researcher also used the determination coefficient to show how much the variation percentage of the independent variable used in the model was able to explain the variation of the dependent variable. For the first and second hypotheses testing, the researcher used the t-test and f-test to examine the third hypothesis. The level of significance used in this study was 5%.

Companies Sample List

No	The Names of the Company	Code
1	FKS Food Sejahtera Tbk	AISA
2	Tri Banyan Tirta Tbk	ALTO
3	Campina Ice Cream Industry Tbk	CAMP
4	Wilmar Cahaya Indonesia Tbk	CEKA
5	Sariguna Primatirta Tbk	CLEO
6	Delta Djakarta Tbk	DLTA
7	Buyung Poetra Sembada Tbk.	HOKI
8	Indofood CBP Sukses Makmur Tbk	ICBP
9	Indofood Sukses Makmur Tbk	INDF
10	Multi Bintang Indonesia Tbk	MLBI
11	Mayora Indah Tbk	MYOR
12	Prima Cakrawala Abadi Tbk	PCAR
13	Nippon Indosari Corpindo Tbk	ROTI
14	Sekar Laut Tbk	SKLT
15	Siantar Top Tbk	STTP
16	Ultra Jaya Milk Industry & Tra	ULTJ
17	Gudang Garam Tbk	GGRM
18	H.M. Sampoerna Tbk	HMSP
19	Bentoel Internasional Investam	RMBA
20	Wismilak Inti Makmur Tbk	WIIM
21	Darya-Varia Laboratoria Tbk	DVLA
22	Kimia Farma Tbk	KAEF
23	Kalbe Farma Tbk	KLBF
24	Merck Tbk	MERK
25	Pyridam Farma Tbk	PYFA
26	Industri Jamu dan Farmasi Sido	SIDO
27	Tempo Scan Pacific Tbk	TSPC
28	Akasha Wira International Tbk	ADES
29	Kino Indonesia Tbk	KINO
30	Martina Berto Tbk	MBTO
31	Mustika Ratu Tbk	MRAT
32	Mandom Indonesia Tbk	TCID
33	Unilever Indonesia Tbk	UNVR
34	Chitose Internasional Tbk	CINT
35	Kedaung Indah Can Tb	KICI
36	Langgeng Makmur Industri Tbk	LMPI
37	Integra Indocabinet Tbk	WOOD
38	Hartadinata Abadi Tbk	HRTA

3. Results and Analysis

The testing of classical assumption test could be seen in the image below:

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: HARGASAHAM
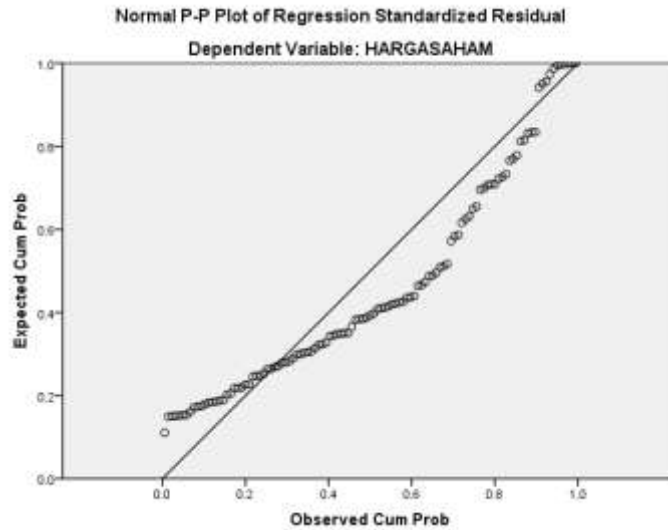
Based on the image above, the spread of data is around the diagonal line and follows its direction. This shows that the regression model has met the normality assumption.

Variable	*Tolerance*	VIF
BV (Book Value)	.997	1.003
EPS (Earning Per Share)	.997	1.003

Source: Data Processing Results

Based on the test results in the table above, it can be observed that all research variables produce a tolerance value of more than 0.10 which means that there is no correlation between the independent variables. The results of the VIF calculation also show the same thing. There is no single independent variable which has a VIF value of more than 10. Thus it can be concluded that there is no multicollinearity symptom between independent variables in the regression model.

To determine the presence or absence of autocorrelation symptoms, it is necessary to do the Durbin Watson test.

Autocorrelation Symptom Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.341[a]	.116	.100	213.537	2.027

Source: SPSS processed data (2021)

The table shows that the D-W number is +2, which means that there is a negative autocorrelation symptom in the research model.

Heteroscedasticity test is to examine whether there is an inequality variance in a regression model from the residuals in one observation to another observation. If there is a difference in variance, then the heteroscedasticity is found. The way to detect whether or not there is heteroscedasticity symptom is by looking at the presence or absence of a certain pattern on the scatterplot graph around the values of X and Y. If there is a certain pattern, then the heteroscedasticity symptom has occurred.
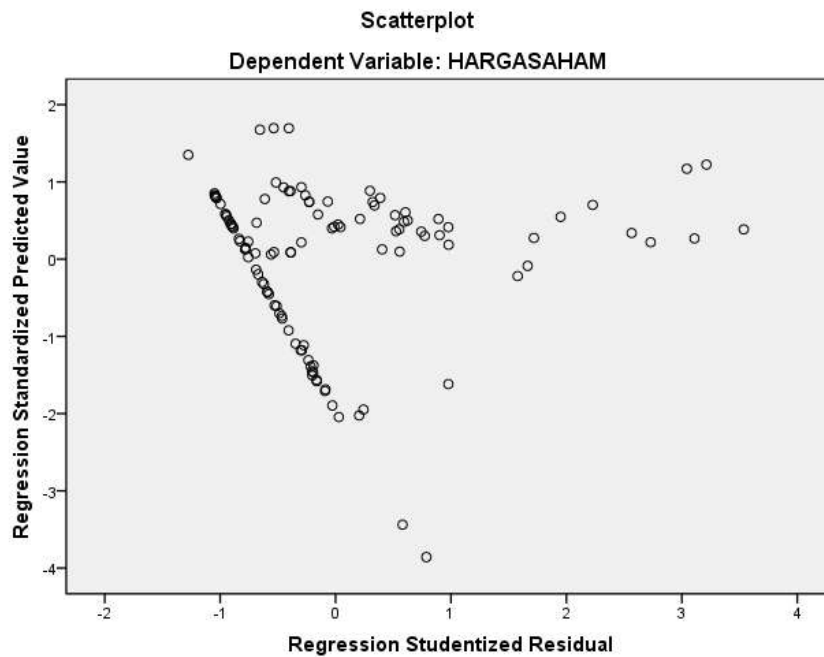
Source: processed data

Based on the testing results on the heteroscedasticity symptoms, it can be observed that there is no certain pattern found in the formed graph. With these results, it can be concluded that there is no heteroscedasticity symptom in the regression model used.

Multiple Linear Regression Analysis
In this study, multiple linear analysis was used to examine The Effect of Book Value Equity and Earnings Per Share on Stock Prices. The results of this analysis could be seen in the following table:

Multiple Linear Regression Analysis Results

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	163.850	31.103	5.268	.000
	BV	.146	.085	1.720	.088
	EPS	-.304	.092	-3.295	.001

Source: SPSS processed data (2021)

Based on the table above, the regression equation could be seen as follows:
$Y = 163.850 + 0.146 X_1 - 0.304 X_2 + e$

Information:

Y   = Stock Price

X_1 = BV

X_2 = EPS

E   = Error Standard

The explanation of the regression equation model was as follows:

The magnitude of the constant value is 163,850, this indicates that if the value of the independent variable consisting of X1 (BV) and X2 (EPS) is 0 then the dependent variable (Stock Price) is 163,850. Earnings per share has a regression coefficient of 0.146 which states that for every additional Rp. 1 of it (assuming that the coefficients of other variables remain or do not change), the company's stock price will increase by Rp. 0.146. On the other hand, if earnings per share decrease by Rp. 1 (assuming that the coefficients of other variables remain or do not change), then the stock price of the company will decrease by Rp. 0.146.

The equity book value has a regression coefficient of -0.304 which means that for every increase of Rp. 1 book value per share (assuming that the coefficients of other variables remain or do not change), the stock price will decrease by Rp. 0.304. On the other hand, if the book value per share decreases by Rp. 1 (assuming that the coefficients of other variables remain or do not change), then the stock price will increase by Rp. 0.304.

To find out whether the independent variables have a significant effect, it is necessary to do the R2, R, t-test, and F-test. The followings were the test results of the four tests:

Determination Analysis Results (R²)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.341[a]	.116	.100	213.537

Source: SPSS processed data (2021)

The results of the regression analysis in the table show that R Square or R2 = 0.116 or 11.6%. This image shows that the contribution or ability to explain the independent variables BV (X1) and EPS (X2) on the dependent variable of stock price (Y) is 11.6% while the remaining 88.4% is influenced by other variables out of the variables studied.

t-test

t-test results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	163.850	31.103		5.268	.000		
	BV	.146	.085	.154	1.720	.088	.997	1.003
	EPS	-.304	.092	-.296	-3.295	.001	.997	1.003

Source: processed data

Based on the output data obtained above, it can be seen that the variable X1 (BV) has a significance value of 0.088 and > 0.05 and the t-count value is 1.720 or > ttable value which is 1.677, meaning Ha is rejected and H0 is accepted. This proves that the BV variable has no effect on stock prices. While the X2 variable (EPS) has a significance value of 0.001 and < 0.05 and the t-count value is 2.797 > the t-table value which is 1.677, indicating that $H_{0\,2}$ is rejected and Ha_2 is accepted. This proves that the EPS variable has a significant effect on stock prices.

F-test

F-test results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	660928.710	2	330464.355	7.247	.001[a]
	Residual	5015805.966	110	45598.236		
	Total	5676734.675	112			

Source: processed data

Based on the output data obtained above, it is known that the significance value is 0.001 or < from 0.1 and the f-count value is 7.247 or > f-table which is 4.9774, thus it can be concluded that $H_{0\,3}$ is rejected and Ha_3 is accepted, this proves that these two independent variables (BV and EPS) simultaneously affect the dependent variable (Stock Prices).

4. Conclusion

The first hypothesis was rejected, based on research results showing that Book Value had a positive and insignificant effect on Stock Prices. Thus, it could be concluded that the higher the Book Value, the higher the Stock Price. However, in industrial sector companies, there was no mutual influence between Book Value and Stock Price. The second hypothesis was accepted, based on research results showing that EPS had a positive and insignificant effect on Stock Prices. Thus, it could be concluded that the higher the EPS, the higher the Stock Price. The third hypothesis was accepted, based on the results of the research showing that Book Value and EPS had a positive and significant effect on Stock Prices. Therefore, it could be concluded that the higher the Book Value and EPS, the higher the Stock Price.

Based on the research results and the conclusions above, the next researchers are advised to: (1) adding independent variables which are thought to have an influence on stock prices from company macro factors such as interest rates, inflation and economic growth. (2) Expanding the research population. (3) Extending the research period, thus the research results can be generalized.

This research had several limitations, including: (1) The quite short research period, which was only 5 years (2013-2017), thus the sample could not represent the overall condition of the company. (2) This research only used automotive companies listed on the IDX, therefore the results did not reflect the overall reaction of the capital market. (3) This research only used the company's financial ratios represented by the current ratio, ROE, DER, and EPS. (4) This research did not examine macro factors such as interest rates, inflation and others.

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