

## THE INFLUENCE OF USING FUNDAMENTAL AND TECHNICAL ANALYSIS ON SHARE PRICES

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### ABSTRACT

*This study aims to determine the effect of the variables contained in fundamental and technical analysis of stock prices. Variables used include Earning Per Share, Return On Assets, Book Value Per Share, Price to Book Value, Past Share Prices, Dup and Ddown. Sample selection uses saturated samples by using all food and beverage companies listed on the Indonesia Stock Exchange in the 2014-2018 period. The data analysis technique used is regression analysis using SPSS 23. The results of the study show that simultaneously all variables affect the stock price. Partially Earning Per Share, Price to Book Value, Past Share Prices, and Ddown have a significant effect on stock prices, while Return On Assets, Book Value Per Share, and Dup have no significant effect on stock prices.*

**Keywords:** *Fundamental Analysis; Technical Analysis; Stock price.*

### PRELIMINARY

The capital market is a means of investing for the community. Stock buying and selling transactions occur in the capital market, the stock price is one of the factors that influence investors to invest. However, stock prices also experience price fluctuations over time, sometimes up and down. This is influenced by the information absorbed by the capital market and the condition of the financial statements or company performance. Investors in investing can analyze stock prices in determining which companies are considered appropriate for channeling their funds. Jogiyanto (2008: 126) says that in determining stock prices, investors use two types of analysis, namely fundamental and technical analysis. In fundamental analysis, the consideration of investor analysis refers to financial reports, sales growth rates, and dividends.

Increased investment requires investors to choose industries that are able to withstand any conditions. Nordiana (2017) said the food and beverage industry is an industrial sector that can be used as an option for investors in channeling their funds, because the food and beverage sector is related to basic needs that will always be needed. The increasing interest in investment, the demand for share prices will also increase. In addition, the food and beverage industry is an important industrial sector in Indonesia. As stated by the ministry of industry on the [kemenperin.go.id](http://kemenperin.go.id) page, this sector also has a role in the development of the industrial sector in Indonesia. The contribution of food product export value was also the highest in 2018 which reached USD 29.91 billion. With these achievements, Indonesia's trade balance is positive compared to the value of imports.

The stock price is influenced by several variables consisting of fundamental and technical. The fundamental variables themselves are more to the company's financial statements such as EPS, ROA, BVS, and PBV. Investors can directly compare the stock price of one company with another whether it is lower or higher through the PBV ratio. Analysts see the market ratio as a consideration for their investment in a company, one of which is the market ratio that is often used is PBV(Hidayatullah, 2018). Meanwhile, technical analysis uses historical information about the company, such as trading volume and price and observing the relative price behavior of shares(Ye, Zhang, Zhang, Fujita, & Gong, 2016).

Fundamental analysis is used to determine which company is better for investment or investment by looking at the company's financial ratios, such as ROA, EPS, BVPS, and PBV. Meanwhile, technical analysis is used by investors in determining the right time to sell or buy a security by looking at the company's closing share price. Based on this description, the author wants to examine the effect of the use of fundamental and technical analysis on stock prices.

## **THEORITICAL REVIEW**

### **Fundamental Analysis**

Fundamental analysis is an analysis that refers to market conditions that may fall at a certain time, fundamental analysts are expected to take advantage of a falling market situation to buy securities and can be resold when the market rises. (Li, 2019). Anderson (2017)said fundamental analysis is an analytical technique that tries to assess the value of a company's securities. Fundamental analysis uses information from the company's financial statements as a view and consideration regarding the future of a company.

### **Technical Analysis**

Technical analysis looks at the data from stock price movements and tries to predict the company's stock price in the future. Technical analysis assumes that stock price movements will be repeated over a certain period of time and then decide to sell or buy securities(Jordanoski, 2016). Sezer (2017) said that technical analysis considerations can be seen from the momentum of the increase and decrease in stock prices by comparing the loss and gain of shares over a certain period of time, the trend of stock prices, and also the momentum when a stock is overbought or oversold.

### **Effect of Earning Per Share on Stock Prices**

Egam et al. (2017)states if the profits of each share held by the shareholders are directly exposed to Earning Per Share. High Earning Per Share indicates that the profit generated by each share is also high. High EPS can produce dividends with high value to shareholders, with high dividends from the company that will attract investors and be able to increase the demand for shares. Increased demand for shares can affect stock prices (Saputro, 2019).

H1: Earning Per Share has a significant effect on stock prices.

### **Effect of Return On Assets on Stock Prices**

Watung and Ilat (2016)said Return On Asset can show the level of an entity's ability to generate profits based on assets owned. An increasing entity's profit will invite investors to channel their funds to the company, the demand for shares will increase along with the high interest in

investing for these shares. An increased ROA ratio will have an impact on the company's net income, this means that the company's sales are increasing or good. A good and increasing sales rate will be a positive signal for investors to consider buying the company's stock price (Ardiyanto et al., 2020)  
H2: Return on assets has a significant effect on stock prices.

### **Effect of Book Value Per Share on Stock Prices**

This ratio describes the value of each share owned by investors in the company's capital. this value is the nominal that will be obtained or paid when the company is liquidated, The share price will increase if the BVPS also increases, because the increase in BVPS can increase investor confidence regarding their investment (Sanjaya, 2018). Aletheari and Jati (2016) stated that Book Value Per Share can be used as a security guarantee for investors for their funds invested in the company because this ratio can describe the real value of a share. As the BVPS ratio increases, the interest of investors to invest their funds will also increase. The increase is because with the increase in BVPS, investor confidence will also increase. Increased investment interest will have an effect on stock prices.  
H3: Book Value Per Share has a significant effect on stock prices.

### **The Effect of Price to Book Value on Stock Prices**

Srifitra (2016) states that Price to Book Value is used as a measuring tool to determine the market condition of a stock, is it being underpriced or overpriced. The company's ability to generate profits from the proportion of investor capital is reflected in the PBV ratio. The higher the PBV ratio, the company has a performance in generating good value for investors, with this performance it will affect the level of market confidence in the company's ability. Sanjaya (2018) said PBV is very important for investors as a material for making investment decisions. A bona fide company has a PBV ratio of greater than one. This means that the market value of the company's shares is higher than the book value of the shares, the stock price can increase along with the increase in investment interest due to the high PBV of the company.  
H4: Price to Book Value has a significant effect on stock prices.

### **The Effect of Past Stock Prices on Stock Prices**

Prayogi (2018) said that stock prices on the stock exchange experience an up and down trend. When the trend is up, stock prices will tend to increase frequently at a certain time. While the downtrend, the decline in share prices will occur periodically at a certain time. This means that there is an effect of past stock prices on current stock prices, because the decline or increase in stock prices will occur repeatedly in a certain time and is called a trend. Stock prices change from time to time, but these changes have a pattern so that they can be used as a reference in investment decisions, with a pattern that always tends to repeat itself and can be used by investors as a reference that will influence stock demand. (Rabiatul, 2014).  
H5: Past stock prices have a significant effect on stock prices.

### **Effect of Dup and Ddown on Stock Prices**

Waworuntu and Suryanto (2010) said investors in investing their funds in companies will expect returns in the form of profits from the funds they spend, the returns can be in the form of returns and dividends. The return obtained by investors from the shares they have is uncertain,

sometimes the return obtained by investors has decreased from the previous period or the return is in negative momentum, and also has an increase from the previous period or in the positive momentum of stock returns. Positive momentum or an increasing trend in stock returns can attract investors to invest, and the demand for company shares tends to rise so that it can affect stock prices. Conversely, negative momentum or a downward trend in stock returns will reduce the demand for company shares, because the expected return is low.

H6: Positive momentum (Dup) has a significant effect on stock prices.

H7: Negative momentum (Ddown) has a significant effect on stock prices.

## RESEARCH METHODS

### Types and Sources of Data

This research uses panel data, with the type of quantitative research. The panel data itself is a combination of cross section data which involves data with many research samples in a predetermined period of time and time series data using one sample of research data with a minimum period of five years. While the data in this study uses secondary data with quantitative research types, the data is taken in the period 2014 to 2018. Research data is obtained from financial reports by accessing the IDX website for data for 2014-2018 stocks in listed food and beverage companies. on the Indonesia Stock Exchange (IDX).

### Sampling technique

The sample used in this study is a food and beverage company that is still listed on the IDX and presents financial reports for the 2014-2018 period. The company's financial statements must present the variables needed by researchers such as EPS, ROA, BVPS, PBV. This study uses 13 companies listed on the IDX in the food and beverage sector. In the normality test carried out by the researcher, the results of the data were not normally distributed, so the researcher removed the outliers and only produced 11 companies with normally distributed data as material for research.

### Analysis Technique

The author in compiling this study used classical assumption test analysis techniques which include normality, autocorrelation, multicollinearity and heteroscedasticity. Meanwhile, the regression test includes the determinant coefficient, f test and t test.

## RESULTS AND DISCUSSION

**Table 1. Summary of Classical Assumption Test Results**

Type of Test / Variable	Normality	Autocorrelation	Multicollinearity (Tolerance / VIF value)	Heteroscedasticity
EPS			0.237 / 4.218	0.379
ROA			0.375 / 2,664	0.968
BVPS			0.232 / 4,316	0.566
PBV	Sig. 0.2	Sig. 0.064	0.461 / 2.171	0.158
HS Masalalu			0.229 / 4,371	0.079
Dup			0.974 / 1.027	0.881
Ddown			0.854 / 1,171	0.391
H. Shares				

Source: SPSS 23 output (processed by researchers), 2020

Table 1 describes the data normality test carried out with SPSS, the sig value is obtained equal to 0.2. In the tests that have been carried out by researchers, the sig value is obtained that is greater than 0.05, meaning that the research data is normally distributed. In the tests that have been carried out by researchers, the sig value is obtained. amounting to 0.064 which is greater than the value of 0.05. So the researchers concluded that there were no autocorrelation symptoms in this study. From the tests that have been carried out using SPSS, each variable has a tolerance value above 0.10. In this study, the results obtained a tolerance value > 0.10, this means that in the regression model of the study there are no symptoms of multicollinearity. In table 1 the results of testing the independent variables with results showing a significance value greater than 0.05.

**Table 2. Summary of Regression Test Results**

Test Type	EPS	ROA	BVPS	PBV	HS Masalalu	Dup	Ddown	H. Shares
<b>F test</b>								
Sig.					0,000			
<b>T test</b>								
t	3,918	-1,287	0.075	2,258	3,500	-2,026	-2,229	
Sig.	0,000	0.207	0.940	0.030	0.001	0.05	0.032	
<b>Determinant Coefficient</b>								
Adjusted R square					0.866			

Dependent Variable: Stock Price

Source: SPSS 23 (processed by researchers), 2020

Table 2 explains the results of regression testing, the sig value is obtained. 0.00, which means less than 0.05, then there is an effect of the independent variable simultaneously on the dependent variable. Then there is an influence between the independent variables simultaneously on the dependent variable. Table 2 shows the R square value of 0.866, which means that the independent variables simultaneously affect the dependent variable by 86.6%. While the rest is influenced by other variables or outside the study.

### Effect of Earning Per Share on Stock Prices

Testing the analysis of the effect of Earning Per Share on Stock Prices obtained sig. EPS variable is 0.00 which means not more than 0.05 and t count is 3.918. Then the EPS variable has a significant effect, then H1 is accepted. Positive t value means that EPS has a positive effect on stock prices. If the EPS rises, the share price will also increase, meaning that if the value per share owned by the company increases, this will of course also increase the rupiah level of shares or the price of shares owned by the issuer or shareholder. In line with the signaling theory, if an entity gives a good signal, in this case the high EPS, of course investors will be interested in investing their capital in the company. Investors in considering their investment decisions are strongly influenced by good company performance factors, this performance can be reflected in the EPS ratio. Companies with high EPS can certainly have good performance, meaning that a company that has a good performance will generate high revenue. The high income of the company will be able to attract investors to invest

in the company and will affect the stock price as demand increases (Aprilyani & Handayani, 2020). The results of this study support previous research conducted by Egam et al. (2017) who said that EPS has a positive effect on stock prices in this study also explains the significance results below 0.05 which means that it has a significant effect. The positive effect of EPS on the stock price itself means that the increasing EPS, it will be balanced by the increase in profits and dividends that will be received by shareholders, with this increase will be able to invite investors to invest which will cause an increase in stock prices due to increased demand.

### **Effect of Return On Assets on Stock Prices**

Testing the analysis of the effect of Return On Assets on stock prices obtained the sig value. ROA variable is 0.207, which means that it is higher than 0.05 and the t count is -1.287. Then the ROA variable does not have a significant effect on the stock price of food and beverage companies, this means that H2 is rejected. The t value obtained is negative, it means that ROA has a negative effect on stock prices. If ROA increases, it tends to affect the decline in the company's stock price, this can be because the company is still unable to maximize the use of its assets to generate high profits. Companies that have not been able to generate high returns as expected by investors, of course, will result in a decreased or small dividend payment to investors (Palangiran, 2020). The results of this study support previous research conducted by Egam et al. (2017) ROA has no significant effect on stock prices. In analyzing stock prices, analysts should pay attention to risks that may occur from internal and external companies such as fluctuations in stock demand, inflation, changes in economic and political policies, and tariff increases.

### **Effect of Book Value Per Share on Stock Prices**

Analysis of the effect of Book Value Per Share obtained sig. BVPS variable is 0.94, which means that it is higher than 0.05 and the t value is 0.075. So the BVPS variable does not have a significant effect on stock prices, this means that H3 is rejected. The results of the positive t count value of BVPS have a positive effect, if the BVPS increases, the company's stock price tends to increase. This is because by knowing BVPS, investors also know the fair price of shares, with this information investors can find out that the fair price of the shares is lower or higher than the offering price. The results of this study support previous research conducted by Fauziah (2017) where there is no significant influence between BVPS and share prices. In order to determine investment decisions in companies, investors must analyze all risks that may arise in the long and short term. So analysts should not only look at the company's book value, but also the company's condition. With the small risk involved in the company, it will be a positive value in determining investors' investment decisions.

### **The Effect of Price to Book Value on Stock Prices**

Analysis of the effect of Price to Book Value on stock prices obtained sig value. PBV variable is 0.03 which means it is lower than 0.05 and the t count is 2.258. Then the PBV variable has a significant effect on stock prices, this means that H4 is accepted. T count positive means there is a positive influence. If the PBV of the company increases, it will affect the increase in stock prices, this is because the level of market confidence in the company's future can be seen from the PBV ratio level. If the PBV level of the company is high, then the company's prospects in the future are believed

to be good, with this the investors will trust to invest in the company so that the demand for shares increases and affects the increase in the price of the company's shares. (Tannia, 2020). The results of this study support the results of previous research by Novita (2019) that PBV has a significant influence and is a determining factor for the ups and downs of stock prices, by looking at PBV, investors can find out whether the stock is under price or overpriced from the book value. Investors can determine the right company with this information. As the company's PBV is high, the demand for shares will also increase due to increased investor interest.

### **The Effect of Past Stock Prices on Stock Prices**

Analysis of the influence of Past Stock Prices on stock prices obtained sig value. Past stock price variable is 0.001 with a lower meaning of 0.05 and t count of 3.500. Then the past stock price variable has a significant effect on stock prices, with this result, H5 is accepted. The positive t value shows a positive effect, if the previous or past stock price was high or increased, then the current stock price tends to rise or be high. These results show that past stock prices have an important role in technical analysis carried out by analysts, by paying attention to the supply and demand for the shares of the companies they will analyze. When the company's stock level of supply is higher than demand, the share price will fall, and when the demand for stock prices is higher than the supply of stocks, an increase in prices will occur (Syamsir, 2006: 5). The results of this study support previous research by Prayogi (2018) that past stock prices have a significant effect on stock prices. If the stock's historical price is high, the current stock price tends to be high as well. This is because there is a stock price trend that tends to occur and recurs at a certain time. Investors can see or take the trend into consideration for their decisions. This is because there is a stock price trend that tends to occur and recurs at a certain time. Investors can see or take the trend into consideration for their decisions. This is because there is a stock price trend that tends to occur and recurs at a certain time. Investors can see or take the trend into consideration for their decisions.

### **Effect of Dup and Ddown on Stock Prices**

Analysis of the effect of Dup and Ddown obtained sig values. Dup variable is 0.05, which means greater than 0.05 and the t count is -2.026. Then the Dup variable does not have a significant effect on stock prices, it means that H6 is rejected, and the value is sig. Ddown variable is 0.032 which means it is lower than 0.05 and the t count is -2.229. Then the Ddown variable has a significant effect on stock prices, this means that H7 is accepted. From the results of tests carried out on the two variables of stock return momentum, it is found that the t value is negative for the dependent variable, meaning that the two variables have a negative effect. When the return is in an upward trend, Investors will buy shares in related companies with the hope of obtaining a high return so that the demand for shares will increase and affect the increase in stock prices. Conversely, when the stock return is experiencing a downward trend, investors are reluctant to channel their funds to the company so that the demand for shares decreases and affects the decline in stock prices. The results of this study support the results of previous research by Waworuntu and Suryanto (2010), the Ddown variable shows a negative effect on stock prices to show a downward trend where the demand for stock prices will also decrease, while the Dup variable which is related to an uptrend but has a negative effect can be influenced by several factors, in this case it is influenced by a decreasing economic situation in a countries that caused the results to be negative. In this study, it was caused by the decline in global

commodity prices in 2015 which resulted in decreased economic performance and capital flows to developing countries including Indonesia so that the Dup variable did not have a significant effect on stock prices.

## CONCLUSIONS AND SUGGESTIONS

The results showed that EPS has a significant effect on stock prices. ROA variable does not have a significant effect on stock prices. BVPS variable does not have a significant effect on stock prices. PBV variable has a significant effect on stock prices. Past stock price variables have a significant effect on stock prices. The Dup variable has no significant effect on stock prices, and the Ddown variable has a significant effect on stock prices.

Suggestions for further research to further enrich the fundamental variables of other profitability ratios such as NPM, so that the effect of profitability ratios is more significant on stock prices, further researchers should be able to develop research in other industrial sectors. Investors should use two kinds of analysis, namely fundamental and technical in order to be more efficient in determining which companies to invest in.

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