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The Impact of Fundamental Analysis on Equity Prices: The Food and Drink Sector

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Abstract

This research aims to ascertain the impact of fundamental factors, such as Return on Assets (ROA), Debt Equity Ratio (DER), Price Earnings Ratio (PER), Current Ratio (CR), and Total Assets Turnover (TATO), on stock prices. The study targets on the listed companies in the food and beverage sectors listed on the Indonesia Stock Exchange between 2012 and 2015. The research design is causal research methods, and the sampling technique is purposive sampling method. During the four-year observation period, 11 out of 17 companies met the criteria. The data was analyzed using data regression analysis technique, employing three approaches: Common Effect, two types of effects: random and fixed. Using the F test and t-statistical test, the Hausman test, Chow test model and Lagrange multiplier test were employed for the model selection. By using F tests, the study's findings showed that ROA, CR, DER, TATO, and PER have an impact on changes in stock prices. The t-statistic test result indicated that while the variables DER, CR, and PER had no effect on the stock price of food and beverage companies, ROA and TATO have a partial influence on the share price.

Keywords: Price-Earnings Ratio (PER), Debt-to-Equity Ratio (DER), Return On Assets (ROA), Current Ratio (CR), Total Assets Turnover (TATO), and Stock Prices.

Introduction

In an economic sector, strategy formulation and competitiveness stabilization are still being developed, particularly in the non-oil and gas industrial sector. The food and beverage industry is one of the fastest-growing industrial subsectors. When compared to other non-oil and gas manufacturing businesses, the food and beverage industry's growth from 2012 to 2015 performed well, according to data given by the Ministry of Industry in the Performance Report of 2015. With a GDP contribution of 5.61%, the food and beverage industry is the one with the largest percentage. With an investment value of Rp 24.53 trillion, the food and beverage industry is the largest in terms of domestic investments (LKKPT, 2015). In the food and beverage sector, the capital market is crucial. It serves an economic purpose by facilitating the correlation of the interests of investors, who have excess funds, and issuers, who require the cash. Equities and debentures (bonds) are the two types of securities that are frequently traded in the capital markets (Tandelilin, 2010).

Investors must to be completely aware that there is a chance of losing money while making investments in the stock market. Since they could also suffer capital loss, there is no assurance that they will keep their capital. They ought to exercise greater caution as a result when choosing which shares to choose. They must carry out a stock valuation to ascertain which shares are more profitable both now and in the future.

Technical analysis and basic security analysis are the two general methods used to assess a share's worth (Hartono, 2007). Investors should do fundamental analysis based on financial ratios to examine changes in share prices in greater detail. By measuring the value of fundamental elements that impact future stock prices and projecting stock prices, fundamental analysis allows for the estimation of share values (Husnan, 2009; Thalassinos et al., 2012; 2023). Basic data is information about the overall state of the business, as displayed in financial statements that illustrate business performance. Fundamental data including cash flow, financial ratios, and other performance indicators linked to stock prices can be seen in these financial statements.

According to Sutrisno (2009), there are five different kinds of financial ratios: profitability, liquidity, leverage, activity, and valuation. The purpose of this study was to ascertain how fundamental element variables affected stock prices. It is possible to assess the correlation between these elements and their impact on stock prices through the analysis. Companies in the food and beverage subsector that were listed between 2012 and 2015 on the Indonesia Stock Exchange are the study's objects.

This is due to the food and beverage industry's value growth being more stable than that of other industries. With its 5.5% share of the country's GDP, the food and beverage sector currently contributes the most to the Indonesian economy and 31% of the total revenue. Domestic output in the industry of non-oil processing (Tribune Business, 2016). Debt to Equity Ratio (DER), Return on Assets (ROA), Price Earnings Ratio (PER), Current Ratio (CR), and Total Asset Turnover (TATO) are the main metrics that are the focus of this study.

Review of Literature

The most popular technique for examining financial statements is financial ratio analysis. A company's financial situation and operational outcomes can be understood by utilizing the financial ratio, which connects different estimates in the financial statements. The ratio is a helpful tool for assessing the operations and financial status of the business and comparing its performance to that of comparable businesses or prior years (Simamora, 2000). By comparing the financial ratio with that of prior years, one may also use financial ratios to identify any abnormalities in the way the company's operational activities are implemented (Wildetal.,2005).

Profitability Ratio is used to analyze the company's effectiveness in obtaining profit. Return on Assets (ROA) measure the company's ability to bring-in profits by using the total assets owned by the company after adjusting the costs to finance the assets (Hanafi and Halim, 2007). ROA can be mathematically calculated using the formula:

$$\mathbf{ROA} = \frac{\textit{The Net Profit After Tax}}{\textit{Total assets}}$$

Liquidity Ratio is used to measure a company's ability to fulfill its short-term liabilities. Current Ratio (CR) measures the ability of current assets to pay current debts. This ratio is calculated by dividing current assets by current liabilities. And it shows how current liabilities are covered by assets that will be converted into cash in the near future. Current assets include cash, tradable securities, receivable accounts, and inventories. Current liabilities consist of payable accounts, short-term receivable notes, long-term debts, taxes and accrued salaries (Brigham and Houston, 2012). The formula for calculating CR is as follows:

$$\mathbf{CR} = \frac{Current\ assets}{Current\ liabilities}$$

Leverage Ratio is used to measure the ability of a company's assets to be funded by debt. Debt to Equity Ratio (DER) is the ratio calculated by dividing total debt with total assets. DER is the ratio between total debt to total shareholders' equity of the company. Total debt represents total short-term debt and total long-term debt. Shareholders Equity is total equity (total of paid-up share capital and retained earnings) owned by the company (Brigham and Houston, 2012). DER can be mathematically formulated as follows:

$$\mathbf{DER} = \frac{Total\ Debt}{Shareholders\ Equity}$$

Activity Ratio is used to measure the company's effectiveness in utilizing financial resources. The ratio of Total Assets Turnover indicates the effectiveness in the use of all company properties in order to increase the sales or to describe how much Net Sales can be obtained by money that is invested in company property (Sawir, 2005). If the turnaround is slow, it indicates that the assets are too large compared to the ability to sell. Generally, the higher the asset turnover, the more efficient the use of such assets. The calculation formula for TATO is as follows:

$$\mathbf{TATO} = \frac{Net\ Sales}{Total\ assets}$$

Valuation Ratio is used to measure a company's ability to create a value to the public (investors) or to the shareholders. This ratio provides information on how much higher the investors can offer to the company than the shares book value. The Price Earnings Ratio (PER) indicates the amount the investor is willing to pay for each reported profit (Brigham and Houston, 2012). A higher PER indicates that the investors are willing to pay a premium share price for the company. The formula for calculating PER is as follows:

$$\mathbf{PER} = \frac{Stock\ price}{Earning\ per\ Share}$$

Stock Price is the price of a stock in the stock market at a particular moment, determined by market participants and influenced by the demand and the supply of shares in the capital market (Jogiyanto, 2008).

Previous Studies

While other research by Pandansari (2012) demonstrate a favorable effect, the results of earlier studies by Dewi and Suaryana (2013) and Daniel (2015) indicate that the effect of DER is negative to stock price. According to research by Tan et al. (2014) and Sondakh et al. (2015), there is influence on the solvency ratio to stock price, however Safitri's (2013) study indicates that there is none. The smaller the ratio, from the standpoint of long-term liability payment, the better the company's long-term liability payment capacity.

Research by Pandansari (2012), Dewi and Suaryana (2013), Kohansal et al. (2013), Polii et al. (2014), Dewi and Hidayat (2014), Daniel (2015), Idawati and Wahyudi (2015), Permana (2017), and Yulsiati (2016) supports results indicating the beneficial ROA effects on stock prices. The findings of research by Meythi et al. (2011), Safitri (2013), and Buigut et al. (2013) reveal profitability ratios that have no effect on stock prices. The ability of the business to turn a profit on each asset it uses is referred to as ROA. This ratio can be used to determine how well the business uses its assets to run its operations (Suryanto et al., 2017).

Research by Daniel (2015) indicates that CR has a negative impact on stock prices, whereas research by Kohansal et al. (2013) indicates a favorable impact. Studies by Meythi et al. (2011),

Deitiana (2013), Tan et al. (2014), and others demonstrate no effect of CR on stock prices. The market price of the relevant stock declines when there is a low current ratio. On the other hand, a larger CR doesn't always mean a successful outcome; it might simply mean that there is more cash or other current asset than is required at the moment.

Previous research by Arslan and Zaman (2014), Daniel (2015), and Safitri (2013) demonstrates a positive and significant PER to stock prices. The degree of investor confidence in the company's performance going forward is shown by this ratio. Investors have greater faith in the issuer when the PER is higher. As a result, the stock price will increase.

Tan et al. (2014)'s study's findings show that TATO has an impact on stock prices. However, a 2013 study by Deitiana revealed that there is no impact on stock prices. An industry's highs and lows in stock prices can also be attributed to how well all of its resources are used to boost sales. The efficiency with which all assets are used to increase sales is indicated by a greater TATO ratio.

Study Framework

The conceptual framework of this study can be seen in the following Figure 1:

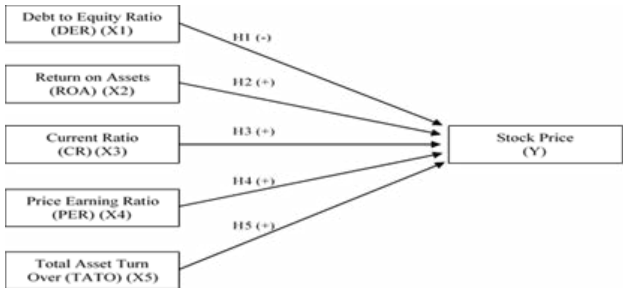

Figure 1 Conceptual Framework

Methodology

The causal research method was applied in this investigation. The purpose of the study is to ascertain how one or more independent factors affect the dependent variable. In this study, DER (x1), ROA (x2), CR (x3), PER (x4), and TATO (x5) are the independent variables. While the stock price (Y) is the dependent variable, the goal of this causal research is to investigate the hypothesis that an independent variable influences the dependent variable, which will be tested using the data that has been gathered. Examining hypotheses using parametric statistical tests and panel data regression analysis is necessary for causal research.

All food and beverage companies that are listed on the Indonesia Stock Exchange comprise the study's population. Between 2012 and 2015, there were 17 (seventeen) firms. Eleven companies satisfied the data availability criteria for the purposive sampling approach, which is used to pick samples based on predetermined criteria. Secondary data, such as financial statements and an overview of the company's recorded performance, were employed in this investigation. The Indonesia Stock Exchange (www.idx.co.id) provided the data. According to Sugiyono (2012), data analysis entails grouping data according to variables and respondent categories, tabulating data according to variables from all respondents, displaying the data of all variables, resolving issues, and testing hypotheses. According to the mean, standard deviation, variation, maximum, minimum, sum, range, kurtosis, and skewness, descriptive statistics give a general picture of the data (Ghozali, 2009). The stationarity test determines the time series data used in this study. It is necessary to avoid spurious regression if regression performed on the data time series is not stationary.

The Chow test is used to identify the regression panel data model using the Fixed Effect or Common Effect approach. The Hausman test is a statistical tool used to determine whether to employ a Fixed Effect or Random Effect model. It was concluded that the Fixed Effect approach should be applied based on the findings of the preceding Chow Test. The Lagrange Multiplier (LM) test determines which of the Random Effect Model and the Common Effect Model (OLS) is the best model to utilize. Measuring the ability of independent variables (ROA, CR, DER, TATO, and PER) to explain the dependent variable (stock price) is the goal of the coefficient of determination.

Panel Data Regression Model Test (F Test)

The purpose of this test is to evaluate the regression models' accuracy in predicting how the DER, ROA, CR, PER, and TATO affect stock price. A significance level of 5%, or 0.05, is applied. The hypothesis states that H0 is accepted if the significant probability level of F is greater than α = 0.05 and rejected if F is less than α = 0.05. Assumption: If H0 is rejected, it implies that there is a substantial relationship between the independent and dependent variables. If H0 is accepted, however, it suggests that there is no significant relationship between the independent and dependent variables.

Panel Data Regression Coefficient (t Test)

At a 5% significance level (0,05), the connection between the dependent variable, firm value, and each of the independent variables in this study—DER, ROA, PER, CR, and TATO—is examined using the t test. The following hypothesis was employed in this investigation using the partial t test:

H1: It is posited that the stock price of food and beverage firms listed on the Indonesia Stock Exchange between 2012 and 2015 is negatively impacted by the Debt Equity Ratio (DER) variable.

H2: From 2012 to 2015, the stock prices of food and beverage companies listed on the Indonesia Stock Exchange were positively impacted by suspected variable Return on Assets (ROA).

H3: From 2012 to 2015, the stock prices of food and beverage companies listed on the Indonesia Stock Exchange were positively impacted by the suspected variable Current Ratio (CR).

H4: From 2012 to 2015, the price of food and beverage companies listed on the Indonesia Stock Exchange is thought to be positively impacted by the Price Earnings Ratio (PER) variable.

H5: For the years 2012 through 2015, it is anticipated that the Total Assets Turnover (TATO) variable would positively impact the stock price of food and beverage companies listed on the Indonesia Stock Exchange.

Results and Discussion

Stationary test DER: H0 is rejected when the results show a reduced probability value of α (5%), 0.0000 <0.05. This demonstrates that the stationary DER variable is not exposed to the unit's roots and is at the first difference level. Stationary Test ROA: If the result of the ROA stationary test is less than α (5%), that is, 0,0086 <0,05, then H0 is rejected. This suggests that the variable is either unchanging or not impacted by the unit's root.

Stationary Test CR: H0 is rejected when the outcome of the stationary test CR has a probability value less than α (5%), specifically 0.0331 <0.05. This suggests that the variable is either fixed or not in contact with the unit's roots.

Stationary Test PER: H0 is rejected when the results show a reduced probability value of α (5%), 0.0000 <0.05. This suggests that the variable is either immobile or not in contact with the unit's roots.

Stationary test TATO result: H0 is rejected when 0.0085 <0.05, or a lesser probability value of α (5%), is obtained. This suggests that the variable is either immobile or not in contact with the unit's roots.

Stock prices from the stationary test: H0 is rejected when the result shows a lower probability value of α (5%), 0.0033 <0.05. This suggests that the variable is either immobile or not in contact with the unit's roots.

Chow Test: If 0.0000 <0.05, the Chow test result indicates a reduced cross section probability value of α (5%), and H0 is rejected. This indicates that the fixed effect model is the strategy that is appropriate for that model and that the common effect model is not. The Hausman test is used to identify the best model between Fixed Effect and Random Effect because H0 is rejected in the Chow test findings.

Hausman Test: H0 is approved since the Hausman test result indicates a greater cross section probability value of α (5%), 0.4885 >0,05. Thus, Random Effect is the appropriate model. As the Hausman results suggest using the Random Effect Model, testing the LM is the last step in figuring out whether model—Common Effect or Random Effect—is best.

The Lagrange Multiplier Test (LM-Test) yields a reduced cross section probability value of α (5%), 0.0000 <0.05, which leads to the rejection of H0. This indicates that the Random Effect Model approach is the most suitable estimation to apply in panel data regression.

Coefficient of Determination (R2): The value of Adjusted R-Squared, which is equal to 0.238092 or 23.8092%, indicates the influence of independent variables to the dependent variable on the stock price based on the data as displayed by using E-views. This suggests that the variance of all independent variables, such as DER, ROA, CR, PER, and TATO, may account for 23.8092% of the variations in stock prices. However, factors other than the independent variables account for the remaining 76.1908%.

Testing Panel Data Regression Model (F Test): Independent variables have a simultaneous impact on the dependent variable, according to test findings utilizing the Random Effect model. The likelihood value of the F-statistics proves this; if 0.008098 is less than α (5%), then H0 is rejected and H1 is accepted. As a result, stock prices can be predicted using the regression model, or it can be stated that DER, ROA, CR, PER, and TATO have an impact on changes in stock prices.

Testing Panel Data Regression Coefficient (t-Test)

The Impact of DER on Equity Prices: The likelihood value of DER above the significance level of α 0.05 (0.6048> 0.05). As a result, H0 is accepted, and it can be said that DER somewhat does not negatively impact stock price. This finding runs counter to research that suggests DER affects stock price, including studies by Dewi and Suaryana (2013), Daniel (2015), Pandansari (2012), Tan et al. (2014), and Sondakh et al. (2015). However, Safitri's (2013) research, which found that the solvency ratio had no bearing on stock prices, is supported by this study. The ratio known as DER is obtained by dividing total debt by total assets. A lower ratio indicates a stronger ability of the corporation to pay long-term liabilities from the standpoint of that ability.

The Relationship Between ROA and Stock Prices: ROA's probability value is less than α 0,05, with 0.0001 less than \ 0,05. As a result, H0 is rejected, and it can be said that ROA influences stock price positively to some amount. Research indicating that ROA has a favorable impact on stock prices has been done by Pandansari (2012), Dewi and Suaryana (2013), Kohansal et al. (2013), Polii et al. (2014), Dewi and Hidayat (2014), Daniel (2015), Idawati and Wahyudi (2015), and Yulsiati (2016). This analysis confirms these findings. However, the findings of Meythi et al. (2011), Safitri (2013), and Buigut et al. (2013), which claim that profitability ratios have no bearing on stock prices, are contradicted by this conclusion. The ability of the business to make more money from each asset it uses is referred to as ROA. We may infer from the study's findings that the related business has been successfully employing its resources for business operations and profit-making.

The Impact of CR on Stock Prices: The probability of CR exceeding the α value of 0.05 (0.8678>0.05) is greater. Consequently, H0 is acknowledged, and it may be said that CR somewhat affects stock price without being positively correlated. Research by Meythi et al. (2011), Deitiana (2013), and Tan et al. (2014), which claims that CR has no influence on stock prices, supports this conclusion. Rather, it contradicts the findings of a study by Daniel (2015), which demonstrates a detrimental effect, and the research by Kohansal et al. (2013), which demonstrates a favorable effect. Stock market values may drop as a result of a low current ratio. On the other hand, a high current ratio isn't always advantageous, it indicates the presence of excess cash or other current assets than what is needed now.

Influence of PER on Stock Prices: PER's probability value is greater than α 0.05 (0.7034> 0.05). Consequently, H0 is accepted, and it may be said that PER somewhat affects stock price in a negative way. The findings of this study diverge from those of other studies by Daniel (2015), Arslan and Zaman (2014), and Safitri (2013), which found a positive and substantial PER in relation to stock prices.

The Impact of TATO on Equity Prices: TATO's probability value is less than α 0,05, with 0.0001 less than \ 0,05. Thus, it may be said that TATO somewhat influences stock price positively and that H0 is rejected. Previous research by Tan et al. (2014), which found that the TATO had a favorable impact on stock prices, lends credence to this study. Conversely, this finding runs counter to earlier research by Deitiana (2013), which indicates that stock prices are unaffected. An industry's stock price can be influenced by how well all of its resources are employed to boost sales, either high or low. An increase in the TATO ratio indicates a more efficient utilization of all assets in driving more sales.

Conclusions and Recommendations

The analysis's findings lead to the conclusion that the DER variable has no detrimental effects on stock price. The probability value of DER, as revealed by the panel data regression coefficient analysis, is 0.6048, greater than 0.05. The likelihood value of 0.0001 indicates that the ROA variable has a positive impact on stock price. The probability value of the CR variable, which has no effect on stock price, is 0.8678. The probability value of the variable PER, which has no effect on the stock price, is 0.7034. The stock price is positively impacted by the TATO variable; the PER probability value is 0.0001. The study's findings indicate that the stock prices of food and beverage companies are influenced by ROA, CR, DER, TATO, and PER. listed on the Indonesian Stock Exchange (BEI) between 2012 and 2015 is noteworthy and encouraging. With a percentage of 23,8092%, the independent variables account for the effect of the stock price, whereas other components not included in the study model can account for the remaining 76.1908%.

It is anticipated that the business will optimize the transactions—by raising current assets or decreasing current debt—that could result in changes in CR. As a result, fluctuations in the company's liquidity will have an impact on its stock price. Additionally, as maintaining and optimizing the capital structure or operating profit is anticipated to have a beneficial impact on the stock price ratio, the corporation should do so. The stock price will climb along with the profits, which will likewise raise the predicted PER. Even if DER, CR, and PER have no bearing on stock prices, investors can still use a variety of financial ratio factors as information sources when making investment decisions. In order to improve the study's outcomes, it is advised that the next one look at additional ratios used to assess stock price as well as expand the number of firm samples and research time.

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