

THE EFFECT OF FINANCIAL PERFORMANCE ON THE STOCK RETURNS OF FOOD AND BEVERAGE COMPANIES LISTED ON INDONESIA STOCK EXCHANGE IN THE PERIOD OF 2016 – 2020

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ABSTRACT

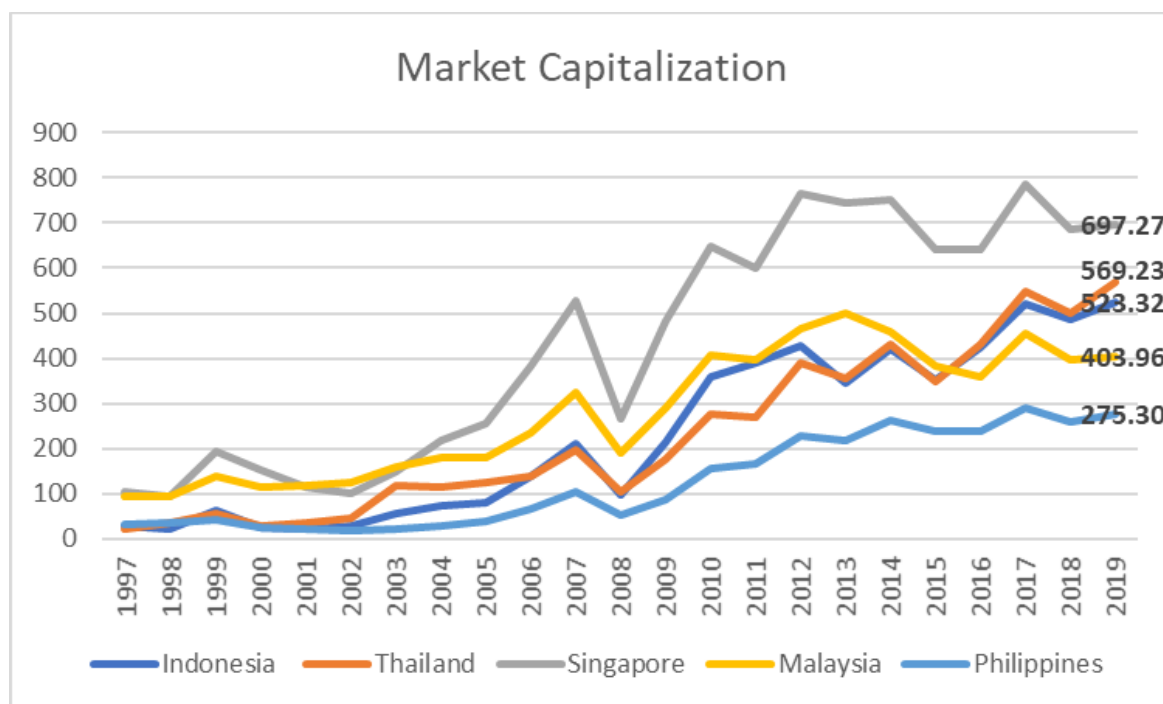
The Indonesian stock market has provided an attractive return and strong historical market capitalization growth for the past ten years, as evidenced by the IDX composite index, which has doubled in value since 2010. The food and beverage industry are one of Indonesia's most appealing industries, as its contribution to the country's GDP has been steadily increasing for the past six years. The food and beverage industry are the main sub-sector in the consumer goods industry, we want to focus on this sub-sector because we expect the food and beverage industry would grow rapidly as the middle-income population of Indonesia grows and the rapid development of the infrastructure which essential in ensuring the industry's growth. The purpose of this research is to examine and analyze the effect of financial performance, namely profitability, liquidity, financial leverage, and efficiency on stock return of food and beverage companies. Based on the purposive sampling method used in this research, we collected the data from 12 food and beverage companies that were listed on Indonesia Stock Exchange in 2020. Using the panel data regression model, the following results are obtained, profitability (ROE), leverage (DER), and valuation ratio (P/E Ratio), have a significant impact on stock returns of food and beverage companies.

Keywords: Profitability, Leverage, Stock Returns, Valuation ratio, IDX, Food and Beverage, Panel Data Regression

INTRODUCTION

Indonesia stock market is one of the most attractive and biggest stock markets in Southeast Asia. This is shown by the strong historical growth of IDX composite index price, that has been doubled for the last decade, and immense stock market capitalization with 523.32 billion USD in 2019, fallen behind Singapore and Thailand with 697.27 billion USD and 569.23 USD, respectively (World Federation of Exchange, 2021). This makes Indonesia stock exchange occupy the third most valuable stock market in ASEAN based on the size of market capitalization.

Figure 1.1 Market capitalization of stock exchange of ASEAN 5 countries



(Source: World Federation of Exchanges)

Following the Asian financial crisis of 1997, the stock market capitalizations of the ASEAN region have seen significant growth. The Indonesia stock exchange growth from 1997 to 2019 is ranked second with a 14.04 percent average annual growth rate using geometric mean, preceded by Thailand with 15.73 percent, and was followed by Philippines, Singapore and Malaysia, with 10.38 percent, 9.01 percent, and 6.89 percent respectively. As a result of this finding, it is clear that the Indonesian stock market has tremendous potential.

There are several sectors that the investor could invest in Indonesia stock exchange, such as finance, mining, infrastructure, property, and consumer goods. Each sector has its own distinct characteristics that vary depending on the preferences of individual investors. In this paper the author would like to focus on consumer goods sector, particularly on the food and beverage sub sectors because of the several reasons that would be explained in the next few paragraphs.

The first reason is food and beverage industry in Indonesia has always been instrumental in helping the economy of Indonesia foster, this was proxied by its high contribution to GDP and export. According to Bank Indonesia (Central Bank of Indonesia) the contribution of Indonesian food and beverage industry to the country's GDP had been increasing for the last six years, with 5.61% (740.8 trillion IDR) in 2015 to 6.85% (1057 trillion IDR) in 2020. As for the export, according to the press release from the Indonesian Ministry of Industry, the food and beverage industry in Indonesia contributes significantly with 31.2 billion USD or 441.62 trillion IDR in 2020.

The second reason that makes food and beverage industry interesting is the ever-growing number of middle-income people in Indonesia. According to Rastogi (2013), the number of middle class and affluent consumer of Indonesia will reach 141 million people in 2020, more than half of the total people of Indonesia. By this rising numbers of middle-income people subsequently will increase the spending on food and beverage products. Thus, it is considered a relatively safe investment choice for most investors to tap in to this highly potential market. Moreover, the rapid development of infrastructure that has been done by Joko Widodo administration will also benefit food and beverage industry since the distribution of products would be faster.

Following our discussion of why the author chose the food and beverage industry, now we would like to know how financial performance affects market performance or stock returns. Financial performance has been acknowledged to have a considerable effect on the company market value, in accordance with signalling theory that was popularized by Ross (1977). In which disclosing a firm's financial report to the public is regarded as a positive signal that may increase the investor's trust in the company.

Investors also believe that companies with strong financial performance will have a stronger future outlook, which would drive the price of company's stock up (Rahayu, 2019). Even though it is true that speculating and day trading might have an irrational effect on the stock price in the short term, the stock price should be eventually smoothed out in the long run into the company's real value (Hobarth, 2006). This is because (long-term) investors acquire a stock because they believe the money they must pay is less valuable than the value of the shares they would receive in exchange.

By assessing the financial performance, the investors will get the information about the general well-being of a firm. Financial ratio analysis may help investors in making investment decisions and predicting company's future performance, as well as provide early warning of company's financial downturn (Ohlson, 1980). It is expected when certain ratios are positive the market will react and the share price will rise, and vice versa.

Following the discovery of discrepancies in previous research, the author is eager to conduct additional research into the relationship between financial performance and stock returns using the most commonly used financial ratios to illustrate the company's performance, namely profitability, liquidity, leverage, efficiency, and valuation ratio. This study is hoped to contribute significantly to the literature of financial research especially regarding to stock performance in Indonesian food and beverage industries, as well as help pave the way for further research in other developing countries.

LITERATURE REVIEW

Financial Ratios Analysis

The use of ratios as a tool for financial statement analysis dates back to the nineteenth and twentieth centuries. Financial statement analysis became necessary when commercial banks started requesting financial statements for lending purposes as early as 1870, and it became common practice in the 1890s (Foulke, 1961). According to Foulke, the interest in studying financial ratios arose in the 1890s from a comparison of current assets to current liabilities, which became known as a current ratio. The popularity of ratios skyrocketed during the 1920s decade. An explosion of publications on the subject of ratio analysis occurred. At the same time, trade associations, universities, credit agencies, and independent analysts began compiling industry ratio data (Horrigan, 1968). From then, the studies of financial ratios analysis have developed and many notable finance research has appeared ever since.

Financial ratios analysis is a good evaluation method to measure the company financial performance (Daryanto, 2017). The ratios are obtained from the financial statement that consists of the balance sheet, the income statement, and the statement of cash flows. In simple terms, financial ratio is a ratio in which the numerator and denominator are both made up of financial data. Financial ratio analysis is important, since it can reveal the company's strengths and weaknesses.

Profitability

Previous studies have shown that high profitability might generate higher stock returns. Hobarth (2006) stated that a firm who has a high EBIT margin and high profitability will have a better market performance measure by the stock price. This finding is strengthened by the research from Fama and French (2008) Anwaar (2016), and (Martani et al., 2009) that founded that profitability is positively significant related to the stock returns. With the prior research stated that a firm with higher book to market ratio and higher profitability will have higher expected returns.

This study will use return on equity or ROE as a proxy for profitability because of these following reasons: first, ROE is a crucial component that can determine earnings growth and dividend growth (Jones, 2016). The second reason is that ROE is the most important ratio to investors since it is directly related to shareholders and shows how effective a company is at generating profits for its shareholders.

An increasing ROE could indicate that the company is making more profit than in previous years. The higher the ROE could also indicate that the company is more effective in utilizing its equity to generate profits, that subsequently will attract lots of investors to invest in the company's stocks, resulting in an increase in stock price and stock return. According to Higgins (2009), the return on equity is calculated as follows:

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Total shareholders' equity}}$$

Liquidity

The ratio that was commonly used to determine the liquidity of a firm is current ratio. The current ratio compares the assets that will turn into cash within the year to the liabilities that must be paid within a year (Higgins, 2009). Many studies have included current ratio in their regression model as a proxy for liquidity in order to determine its influence on the stock returns, however many has failed to prove that current ratio has a significant relationship with stock returns (Martani et al., 2009) (Khan et al., 2012), only Rochim and Ghoniyah (2017) that had been successfully proved that current ratio has positive significant effect on stock returns. Therefore, the author would like to know whether or not the current ratio has a significant relationship with stock returns of a company in food and beverage industry in Indonesia.

The current ratio compares assets that will be converted into cash within a year to liabilities that must be paid within a year. A higher ratio indicates a higher level of liquidity, while lower ratio indicates less liquidity, implying reliance on operating income and outside financing (Higgins, 2009). Current ratio equation is calculated as follows:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Leverage

Financial leverage has become one of the most important aspects to consider when analyzing stock returns. However, studies on the relationship between financial leverage and stock returns have yet to come to agreement, with some finding a positive correlation and others finding a negative correlation. According to Bhandari (1988) and Khan et al., (2012), the debt-to-equity ratio has a positive impact on stock returns. The rationale for this finding is that interest expenses are tax deductible, making it a less expensive source of funding than equity (Modigliani and Miller, 1963).

In contrast, Fama and French (1998) find no reliable evidence of tax effects and, in fact, find the polar opposite of conventional wisdom, namely, a negative relationship between debt and firm value. This finding was strengthened by Muradoglu and Whittington (2001) that founds low leverage companies in UK had significantly higher returns than the market. In this research the author will use debt-to-equity ratio (DER) as the proxy for financial leverage. Debt-to-equity ratio equation is calculated as follows:

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total shareholders' equity}}$$

Efficiency

In terms of efficiency ratio, the author would like to focus on inventory turnover as a proxy to illustrate the efficiency of a firm. Inventory turnover indicates how many times a company's whole inventory is sold in a given accounting period, and it can identify whether a company has excessive inventory in relation to sales. Given the importance of effective inventory management, the author would like to know whether or not inventory turnover affects the stock return in food and beverage industry. Since prior research has shown that firms with better inventory productivity had higher ROA and stock return, as well as a significant predictor of future stock return (Gaur, 1999) (Alan, Gaur, and Gao, 2011). Inventory turnover could be calculated with this following equation:

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Valuation ratio

The use of valuation ratios in investment decision making process has been around for a long time. The price-to-earnings ratio (P/E ratio) is the most often used and well-known indicator in the valuation ratio. The P/E ratio illustrates the relationship between price and earnings per share. To put it another way, the P/E ratio shows how much a common stock investor pays per dollar of current earnings. Many of the prior research that has shown that there is an inverse relationship between P/E ratio and stock returns. Basu (1977) found that low P/E portfolios earned higher returns on a risk-adjusted bases than the high P/E securities in NYSE listed firms, Fun and Basana (2012) also found similar results in Indonesia. The P/E ratio is calculated as follows:

$$\text{P/E ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$$

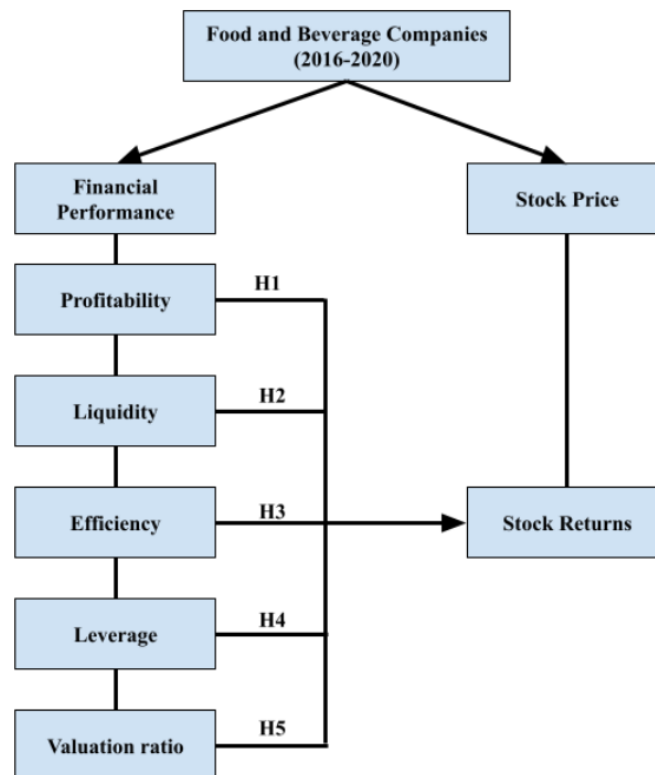
Comparing the P/E ratios of companies in the same industry is a typical technique among investors and researchers. Although P/E ratios for firms in different industries could be compared, the comparison is unlikely to be meaningful since P/E ratios are likely to vary due to differences in the operating and financial structures of organizations in different industries (Jones, 2016). As a result, only companies in the same industry, the food and beverage industry, were used in this study.

METHODOLOGY

Conceptual Framework

The conceptual framework that can be drawn based on the background, literature review, and previous studies is to look at the effect and relationship between profitability, liquidity, leverage, efficiency, and valuation ratio on the stock returns of food and beverage companies listed on the Indonesia Stock Exchange in the 2016-2020 period, is as follows:

Figure 3.1 Conceptual Framework



(Source: Arrazy and Daryanto, 2021)

Hypothesis asserts a logically presumed relationship between two or more variables in the formulation of propositions that can be empirically tested. Based on the conceptual framework, the following are the hypothesis for this study:

1. H1: Profitability has significant effect on the stock returns
2. H2: Liquidity has significant effect on the stock returns
3. H3: Leverage has significant effect on the stock returns
4. H4: Efficiency has significant effect on the stock returns
5. H5: Valuation ratio has significant effect on the stock returns

Research Design

This study falls under the category of causal research. Causative research is done to see what causes the independent variable to have an influence on the dependent variable. When examining the cause-and-effect relationship between variables, the correlation and level of significance between one variable and another are measured, either partially or simultaneously. Causative research collects numerical data from observations or experiments with a representative sample to address the how and why questions.

The population of this study is limited to companies listed on the Indonesia Stock Exchange. The data used is secondary data derived from financial statements of publicly traded companies. The data is then processed using EViews 12 version, and after the statistical results are obtained, it is hoped that the results can be used to prove the predetermined hypothesis. Following the completion of this causative research, it is expected that the relationship between financial performance and stock returns will become more evident, with a definite correlation and level of significance.

The author uses a purposive sampling method to determine the sample, which involves setting certain limits and criteria. The following are the sample criteria that were used:

1. Companies that are included in the food and beverage sub-sector in the Indonesia Stock Exchange classification.
2. Companies that have been listed on the Indonesia Stock Exchange for at least five years, from 2016 to 2020.
3. Companies have consistently published audited financial statements for each year from 2016 to 2020.
4. Companies must not record any net loss during the period of 2016 to 2020, as this study aims to determine the appropriate relationship between P/E ratio and stock return, which negative earnings might distort the results.

Based on those four criteria, the author has gathered 12 companies that have met the criteria. The companies that were selected are listed in the table below.

Table 3.1 Table of samples

No	Company Name	Ticker
1	PT Akasha Wira International Tbk	ADES IJ Equity
2	PT Wilmar Cahaya Indonesia Tbk	CEKA IJ Equity
3	PT Delta Djakarta Tbk	DLTA IJ Equity
4	PT Indofood CBP Sukses Makmur Tbk	ICBP IJ Equity
5	PT Indofood Sukses Makmur Tbk	INDF IJ Equity
6	PT Multi Bintang Indonesia Tbk	MLBI IJ Equity
7	PT Mayora Indah Tbk	MYOR IJ Equity
8	PT Nippon Indosari Corpindo Tbk	ROTI IJ Equity
9	PT Sekar Bumi Tbk	SKBM IJ Equity
10	PT Sekar Laut Tbk	SKLT IJ Equity
11	PT Siantar Top Tbk	STTP IJ Equity
12	PT Ultrajaya Milk Industry Tbk	ULTJ IJ Equity

(Source: Arrazy and Daryanto, 2021)

This study will provide an insight at the five hypotheses that were developed using these six variables, one of which is the dependent variable and the other five are independent variables. Stock returns are the dependent variable in this study, while return on equity (ROE), current ratio (CR), debt-to-equity ratio (DER), inventory turnover (INTO), and price-to-earnings ratio (PE) are the independent variables. The following table is an explanation of the variables mentioned:

Table 3.2 Table of variables

Type of variable	Variables	Indicator	Formula
Dependent variable	Stock returns	Stock returns	$\frac{\text{Stock price}_t - \text{Stock price}_{t-1}}{\text{Stock price}_{t-1}}$
Independent variable	Profitability	Return on equity (ROE)	$\frac{\text{Net income}}{\text{Total shareholders' equity}}$
Independent variable	Liquidity	Current ratio (CR)	$\frac{\text{Current assets}}{\text{Current liabilities}}$
Independent variable	Leverage	Debt-to-equity ratio (DER)	$\frac{\text{Total liabilities}}{\text{Total shareholders' equity}}$
Independent variable	Efficiency	Inventory turnover (INTO)	$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$
Independent variable	Valuation ratio	Price-to-earnings ratio (PE)	$\frac{\text{Price per share}}{\text{Earnings per share}}$

(Source: Arrazy and Daryanto, 2021)

Panel data regression analysis was used to analyze the data in this research study, and the author processed the data using EViews. The steps in this data analysis methods are descriptive statistics, panel data regression methods selection, classical assumption test (normality test, multicollinearity test, autocorrelation test, heteroskedasticity test) and then followed by hypothesis test using panel data regression analysis, partial testing (T-test), and simultaneous significance test (F-test).

After passing the classical assumption test, the next step is to conduct a regression analysis. As previously stated, this research will use panel data regression analysis. With panel data regression analysis, the relationship between financial performance (profitability, liquidity, leverage, and efficiency) and stock return of Indonesian food and beverage company will be investigated further. The equation for the regression models is as follows:

$$SR_{i,t} = \alpha + \beta_1 ROE_{i,t} + \beta_2 CR_{i,t} + \beta_3 DER_{i,t} + \beta_4 INTO_{i,t} + \beta_5 PE_{i,t} + \epsilon_{i,t}$$

Notes:

- SR = Stock returns
- α = Constant
- β = Regression coefficient
- ROE = Profitability (proxied by return on equity)
- CR = Liquidity (proxied by current ratio)
- DER = Leverage (proxied by debt-to-equity ratio)
- INTO = Efficiency (proxied by inventory turnover)
- PE = Valuation ratio (proxied by price-to-earnings ratio)
- ϵ = Error

The following tests will be used to test the hypothesis that was formulated earlier in this study:

1. Coefficient of Determination Test (Goodness of Fit)

The purpose of the coefficient of determination test is to find the relationship between the dependent variable and independent variables that can explain the variation in the data as indicated by the size of the coefficient of determination (R-square), or in other words, to determine how well the model can explain the dependent variables (Ghozali, 2016). The range of coefficients of determination is 0 to 1. The greater the R-squared value, the better the independent variables' ability to explain the dependent variable and vice versa.

2. F Test

F test aims to find out whether the independent variables simultaneously affect the dependent variable or not (Ghozali, 2016). The level of significance used in the f test hypothesis is $\alpha=0.05$ or 5%.

a. If prob. of F-statistic $< \alpha 0.05$ then the model is statistically significant and the independent variables simultaneously affect the dependent variable.

b. If prob. of F-statistic $> \alpha 0.05$ then the model is not statistically significant and the independent variables simultaneously do not affect the dependent variable.

3. T Test

T test is used to test the significance level of the influence of the independent variables on the dependent variable in partial fashion. The following is the t test hypothesis:

a. H0: One independent variable has no influence on the dependent variable.

b. H1: One independent variable has an influence on the dependent variable.

The following information is used to make partial test statistical analysis decisions:

a. If the sig of probability (p-value) is less than 0.05, H0 is rejected.

b. If the sig of probability (p-value) is greater than 0.05, H0 is accepted.

RESULT AND DISCUSSION

Panel Data Regression Methods Selection

It is necessary to choose the most appropriate model from the common effect model, fixed effect model, or random effect model before performing panel data regression analysis. The Chow test, the Hausman test, and the Lagrange Multiplier test are the three tests that must be used to determine the best panel data regression model. Following those tests, the most suitable method for conducting panel data regression in this study were obtained by using common effect model.

Table 4.1 Chow, Hausman, and Lagrange Multiplier Test

Chow Test		Probability	
Cross-section F		0.0893	
Cross-section Chi-square		0.0211	
Hausman Test		Chi Sq. Statistic	Probability
Cross-section random		9.9275	0.0773
Lagrange Multiplier Test		Cross-section	Time
Breusch-Pagan		0.9010	0.3969
		0.3918	

(Source: Arrazy and Daryanto, 2021)

Regression Model Analysis

After doing to the classical assumption test, it concluded that the data in the study is free from any problem, because the residual of data is normally distributed, the independent variables does not have multicollinearity problem, the data is free from autocorrelation, and the data is free from heteroskedasticity. Following the selection of the most appropriate regression model and a classical assumption test, the next step is to use the EViews application to perform panel data regression with common effect model, which yields the following result:

Table 4.2 Common Effect Model Regression

Variable	Coefficient	t-Statistic	Probability
CONSTANT	0.3989	2.6211	0.0114
ROE	0.3490	2.6476	0.0106
CR	-0.0440	-1.8736	0.0664
DER	-0.3016	-2.5048	0.0153
INTO	0.0034	0.5630	0.5757
PE	-0.0030	-2.4258	0.0186
R-squared: 0.2410		F-statistic: 3.4306	
Adjusted R-squared: 0.1708		Prob (F-statistic): 0.0091	

(Source: Data processed EViews 12 version, 2021)

The results of panel data regression using the common effect model produce the following equation:

$$SR = 0.399 + 0.349ROE - 0.044CR - 0.302DER + 0.003INTO_i - 0.003PE + \epsilon_i, t$$

Coefficient of Determination Test Analysis

The coefficient of determination test is used to determine how much the relationship between independent variables and dependent variable that can explain the variation in the data. The amount of coefficient of determination can be determined from the R-squared value. As shown in the Table 3, it can be seen that the R-squared value for the regression model is 0.241. The result showed that the relationship between the independent variables and dependent variable explains 24.1 percent of the variation in the data.

F-Test Analysis

F-Test were conducted to determine whether the variables simultaneously have a significant influence on the dependent variable or not. The F-statistic value of 3.4306 was obtained from the panel data regression result in table 3, with a probability value of 0.0091 less than the significance level of 5%, indicating that the model is statistically significant and the independent variables does affect the dependent variable simultaneously. It means that profitability, liquidity, leverage, efficiency, and valuation ratio simultaneously have statistically significant effect to stock returns of the food and beverage companies.

T-Test Analysis

The T-test is used to determine whether each independent variable has a significant influence on the dependent variable. Table 3 shows the t-statistic value and coefficient for each of the independent variables. The following is a detailed explanation for each individual independent variable as well as the hypothesis test result:

1. H1: Profitability has significant effect on the stock returns (accepted)

The result of the regression test of the influence of ROE to stock returns yielded a coefficient of 0.3490, a t-statistic value of 2.647, and a probability value of 0.0106. The coefficient result can be read as follows: if the ROE increases by one unit, the stock return will increase by 0.3490. Because the probability value is less than the significance level, the t-test result indicates that there is a significant effect from profitability to stock returns, implying that hypothesis 1 is accepted.

This finding implies that the more profitable a company is, the higher the return on its stock, and vice versa. The relationship between ROE as a proxy for profitability and stock returns is in accordance with Martani et al. (2009), who discovered that firms with higher ROE have higher stock returns because investors pay attention to firms with higher ROE and expect the firm's profit to grow because it shows the company/s competence in managing its capital.

The findings also in line with the research from Hobarth (2006), Anwaar (2016), and Fama and French (2008). According to Hobarth (2006) and Anwaar (2016), there is a positive significant relationship between ROA and stock return, implying that investors seek high profitability when selecting stocks. Meanwhile, Fama and French (2008) came to a similar conclusion, but instead of ROA, they used income before extraordinary items divided by book equity.

2. H2: Liquidity has significant effect on the stock returns (rejected)

The coefficient of -0.0440, the t-statistic value of -1.8736, and the probability value of 0.0664 were obtained from the regression test of the influence of current ratio (CR) on stock returns. The coefficient result can be read as follows: if the CR increases by one unit, the stock return will decrease by 0.0440. The t-test result indicates that liquidity has no significant effect on stock return because the probability value is greater than the significance level, implying that hypothesis 2 is rejected.

This finding extends the list of studies that failed to prove that there is a significant relationship between liquidity and stock returns, which has been studied by Martani et al., (2009) and Khan et al., (2012). Initially, the author believed that a higher current ratio would result in higher returns because it demonstrates a company's ability to manage its working capital properly. However, the author was proven incorrect and was unable to replicate the findings of Rochim and Ghoniyah (2017), who discovered that the current ratio has a positive significant relationship with stock returns.

3. H3: Leverage has significant effect on the stock returns (accepted)

The regression test of the influence of DER on the stock returns yielded a coefficient of -0.3016, a t-statistic value of -2.5048, and a probability value of 0.0153. The result of the coefficient means that if the DER increases by one unit, the stock return decreases by 0.3016. The t-test result indicates that there is a significant effect from leverage to stock return because the probability value is less than the significance level, suggesting that hypothesis 3 is accepted.

This finding suggests that the more leverage a company has, the lower the return on its stock will be, and vice versa. The correlation between DER as a proxy for leverage and stock returns is in line with Muradoglu and Whittington (2001), who discovered that companies with low leverage outperformed the market by a significant margin. This finding also strengthened by Fama and French (1998) who found that the firm value is negatively related to debt.

The rationale for this finding is that many investors consider a low debt ratio to be desirable feature because it indicates that the company is not facing a solvency problem, which could increase investor confidence. The other explanation is that low geared firms have the greatest potential for increasing leverage compared to the high geared firms (Muradoglu and Whittington, 2001). Although it is true that leverage might has a positive impact on stock returns, as several studies have shown, we must keep in mind that companies have different optimal debt-equity ratios, and this indicator could be attributed to different findings in the literature.

4. H4: Efficiency has significant effect on the stock returns (rejected)

The result of the regression test of the influence of inventory turnover (INTO) to stock returns yielded a coefficient of 0.0034, a t-statistic value of 0.5630, and a probability value of 0.5757. The coefficient's result indicates that a one-unit increase in the inventory turnover increases the stock return by 0.0034. The t-test result indicates that efficiency has no significant effect on stock return because the probability value is greater than the significance level, suggesting that hypothesis 4 is rejected.

The hypothesis test showed that inventory turnover (INTO) does not have significant effect on the stock returns. Given the importance of effective inventory management in the food and beverage industry, the author initially believed there is a positive relationship between inventory productivity and stock return. The author, however, was proven wrong, and was unable to prove the findings of Gaur (1999) and Alan, Gaur, and Gao (2011), who found that firms with higher inventory productivity had higher ROA and stock returns.

5. H5: Valuation ratio has significant effect on the stock returns (accepted)

The regression test of the influence of price-to-earnings ratio (P/E) on the stock returns yielded a coefficient of -0.0030, a t-statistic value of -2.4258, and a probability value of 0.0186. The coefficient's result indicates that a one-unit increase in the P/E

ratio reduces the stock return by 0.0030. Because the probability value is less than the significance level, the t-test result indicates that there is a significant effect from valuation ratio to stock return, implying that hypothesis 5 is accepted.

This finding implies that the lower a company's valuation ratio, the higher its stock returns. The relationship between the P/E ratio and stock returns is in accordance with Basu (1977), who discovered that low P/E portfolios earned higher risk-adjusted returns than high P/E securities. This result is based on the fact that low P/E ratios exaggerate investor expectations, resulting in higher future investment performance

Moreover, the study between P/E ratio and stock returns have been done in Indonesia by Fun and Basana (2012), they discovered a significant difference in portfolio stock returns between low and high P/E in a six-month holding period, with low P/E earning a higher return. The reason for this finding is that in Indonesia, investing in stocks with a low P/E ratio has remained a popular strategy. Stocks with a low P/E ratio are thought to have a lower current price and, as a result, are expected to generate more return.

CONCLUSION AND RECOMMENDATION

Conclusion

This research examines the effect of financial performance on stock returns using data from food and beverage companies listed on the Indonesia Stock Exchange from 2016 to 2020. The author used five independent variables and one dependent variable in this research. The independent variables are return-on-equity, current ratio, debt-to-equity-ratio, inventory turnover, and price-to-earnings-ratio, while the dependent variable is stock returns.

Following the completion of this study, the following findings were discovered: three of the five financial performance factors, namely profitability (ROE), leverage (DER), and valuation ratio (P/E Ratio), have a significant impact on stock returns of food and beverage companies listed on Indonesia stock exchange. On the other hand, liquidity (Current Ratio) and efficiency (Inventory Turnover) have no significant impact on stock returns. This means that three of the five proposed hypothesis, namely hypothesis 1, hypothesis 3, and hypothesis 5, were accepted.

Profitability that is proxied ROE has been shown to have a positive significant effect on stock returns, because investors tend to seek high profitable firms when selecting stocks. Moreover, they also expect the profitability of higher ROE firms to grow, as they believe it demonstrates the ability of the company in managing its capital. Furthermore, leverage as measured by DER has been shown to have a negative significant effect on stock returns. A low debt ratio is viewed as a desirable feature by many investors because it indicates that the company is unlikely to face a solvency problem, which could boost investor confidence.

Valuation ratio as measured by P/E ratio has also been shown to have a negative impact on stock returns. Because low P/E ratios can exaggerate investor expectations, resulting higher future investment performance. Furthermore, investing in stocks with a low PE Ratio has become a common investment strategy among Indonesian investors. Meanwhile, the findings suggest that there is insufficient evidence to show the effect of liquidity and efficiency on stock returns in food and beverage companies in Indonesia, since the obtained results between the relationship of current ratio and inventory turnover to stock returns are not significant.

Recommendation

There are several recommendations that the author can convey after conducting this research, namely:

1. Investors interested in investing in food and beverage companies listed on the Indonesia stock exchange should look for companies that are highly profitable and have a low leverage and valuation ratio. Because it appears that companies that meet those criteria are more likely to have high stock returns.
2. Food and beverage companies in Indonesia must pay close attention to profitability, leverage, and valuation ratio if they want to improve their market performance. In other words, they need to increase their profitability while lowering their leverage and valuation ratio to make them more appealing to investors.
3. Future researchers are suggested to include the other independent variables that can influence stock returns, as there are still many variations that are yet to be explained by the data. Further research may consider adding more variables for each category of financial ratios, as well as macroeconomic variables that could affect stock returns.

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Appendix

Output by using EViews 12 SV
Panel Data Regression Test with Common Effect Model

Dependent Variable: SR
Method: Panel Least Squares
Date: 11/17/21 Time: 15:32
Sample: 2016 2020
Periods included: 5
Cross-sections included: 12
Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.398925	0.152196	2.621127	0.0114
ROE	0.349070	0.131840	2.647673	0.0106
CR	-0.044005	0.023486	-1.873685	0.0664
DER	-0.301594	0.120404	-2.504857	0.0153
INTO	0.003416	0.006067	0.563076	0.5757
PE	-0.003029	0.001249	-2.425876	0.0186

R-squared	0.241072	Mean dependent var	0.081636
Adjusted R-squared	0.170801	S.D. dependent var	0.242223
S.E. of regression	0.220570	Akaike info criterion	-0.090568
Sum squared resid	2.627150	Schwarz criterion	0.118867
Log likelihood	8.717038	Hannan-Quinn criter.	-0.008647
F-statistic	3.430600	Durbin-Watson stat	1.984213
Prob(F-statistic)	0.009171		

Chow Test

Redundant Fixed Effects Tests
Equation: FEM
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.773607	(11,43)	0.0893
Cross-section Chi-square	22.447277	11	0.0211

Hausman Test

Correlated Random Effects - Hausman Test

Equation: REM

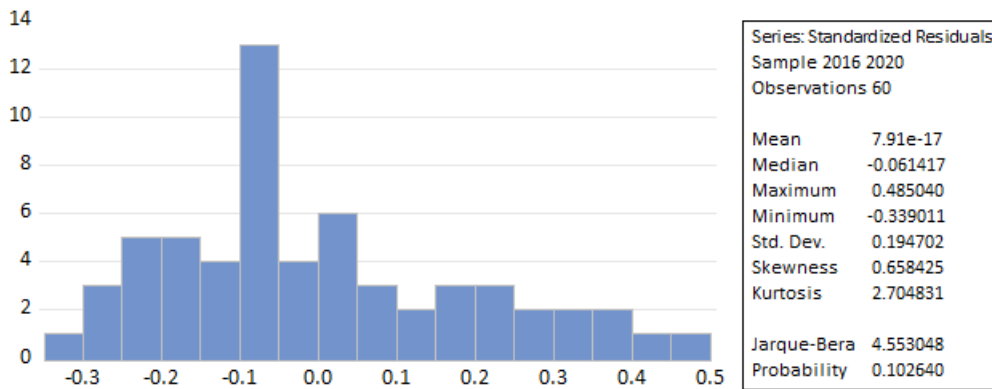
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.927533	5	0.0773

Lagrange Multiplier Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.015474 (0.9010)	0.717768 (0.3969)	0.733242 (0.3918)

Normality Test



Heteroskedasticity Test

Dependent Variable: RESABS
 Method: Panel Least Squares
 Date: 11/13/21 Time: 11:34
 Sample: 2016 2020
 Periods included: 5
 Cross-sections included: 12
 Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.073583	0.096816	0.760030	0.4505
ROE	0.013288	0.083867	0.158442	0.8747
CR	0.005774	0.014940	0.386483	0.7007
DER	0.069787	0.076592	0.911149	0.3663
INTO	0.002831	0.003859	0.733559	0.4664
PE	-0.000133	0.000794	-0.167158	0.8679
R-squared	0.039215	Mean dependent var		0.159705
Adjusted R-squared	-0.049746	S.D. dependent var		0.136945
S.E. of regression	0.140310	Akaike info criterion		-0.995284
Sum squared resid	1.063094	Schwarz criterion		-0.785850
Log likelihood	35.85852	Hannan-Quinn criter.		-0.913363
F-statistic	0.440813	Durbin-Watson stat		1.400480
Prob(F-statistic)	0.818022			

Autocorrelation Test

	ROE	CR	DER	INTO	PE
ROE	1.000000	-0.142939	0.447492	-0.050991	-0.128605
CR	-0.142939	1.000000	-0.728856	-0.212319	-0.217326
DER	0.447492	-0.728856	1.000000	0.082311	0.126947
INTO	-0.050991	-0.212319	0.082311	1.000000	0.113020
PE	-0.128605	-0.217326	0.126947	0.113020	1.000000