

Perspective Financial Ratios in Assessing the Performance of Stock on Textile Sector Firm Listed on the Indonesia Stock Exchange

Yunike Berry^{1*}

¹Management Department, Universitas Islam 45 Bekasi

Abstract

Observing the rise in investors in the Indonesian stock exchange, particularly during the Covid 19 pandemic, the author is interested in research on fundamental analysis in assessing stock prices on the Indonesian stock exchange, especially firms in the textile and apparel sectors. This research investigates how financial ratios affect stock values from 2018 to 2020. A total of 16 firms serve as research samples. This research used panel data and was analyzed by a regression test of panel. From the test results, it was found that variables price book value, price earning ratio, quick ratio, return on total assets and total asset turnover has effect on stock price while there was no effect of debt Ratio and rurrent ratio on stock price in garment and textiles sector for 2018-2020.

Keywords: financial ratio; stock price; fundamental analysis

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*Corresponding author: yunike.berry@unismabekasi.com

Introduction

Currently, many people prefer investing their assets in the form of shares in the firm. Based on news on CNBC Indonesia (Djajadi, 2020), there is increasing number of firm that list on the Indonesia Stock Exchange (IDX) as a means provided by the government to trade their shares in general, making it easier for anyone to invest their assets in stock.

In the financial system there is a money market and capital market. The basic difference lies in investment products from both markets, namely short -term and long term. Indonesia stock market as capital market trade stock, obligation and other (Fathonah Eka Susanti;Titi Laras, 2021). Additionally, pursuant to Law No. 8 of 1995, public offering activities, securities trading, and publicly traded enterprises are all aspects of the capital market that are related to the published securities. Capital markets in Indonesia have several roles that support the Indonesian economy.the role of the first relates to the means of providing funds for the business and the means of obtaining funds for the firm. The monies collected may be used for business growth,

business development, or raising the firm's operating capital. the second role is related to the public, people in Indonesia .the capital market as an alternative choice means of investment for the community. products in the Indonesia stock market are stocks, obligation, mutual funds and others.

On March 9, 2020, the World Health Organization (WHO) proclaimed the Coronavirus Disease 19 (Covid-19) outbreak a pandemic. Which is be difficult year for mostly country and people around. researchers obtained data from KSEI (Kustodian Sentral Efek Indonesia) regarding the number of investors in the Indonesian capital market. From the data obtained, it can be seen a trend of increasing the number of investors from 2018 to 2021. even though in the span of that year there was a pandemic, this shows that the capital market is still an option for people in investing.

Investors need to pay attention to several factors to make decisions in selling their shares or buying shares and other investment activities in the capital market in order to get a profit. In that case investors can use several analyses to make investment decisions. the analysis used is

technical analysis and fundamental analysis (Agirman, E. & Yilmaz, 2018). Several analyzes can be used by researchers in this case, be it technical analysis or fundamental analysis. In fundamental analysis, investors need to know the information or background of the firm they are interested in, both financially within the firm or the performance obtained by the firm. One of the indicators that investors often pay attention to companies that have go public is the firm's stock price.

One of the industrial sectors that was not well than other industry in this research year was the textile industry. According to CNBC Indonesia, the miscellaneous industry sector index posted the worst yield performance in the first 9 months of 2019 with a decline of 16.05%, where textile and garment industry stocks contributed significantly to the decline. Representing January 2 to September 30, 2019, 19 stocks from companies in the apparel and textile industries were listed on the Indonesia Stock Exchange, there were 9 stocks that recorded negative returns. Some even fell by more than 50%. Investors must consider before making a decision in investing to reduce risk. Information relating to the performance or condition of the firm in the financial statements. Investors will experience losses when stock prices decline, because stock returns will be negative.

Financial Ratio is used as a formula to test the company's financial ability both from its debts and the profits obtained (Barnes, 1987). Financial ratios are part of the financial statement analyzes that investors can use to see the firm's financial performance. According to Sanjaya (2017) financial ratios are a method that is often used to find out the relationship between account in financial statements in order to evaluate the financial condition and performance of the firm and make it easier to understand the firm's financial information. Financial ratios are grouped into five ratio, there are analyzing liquidity,

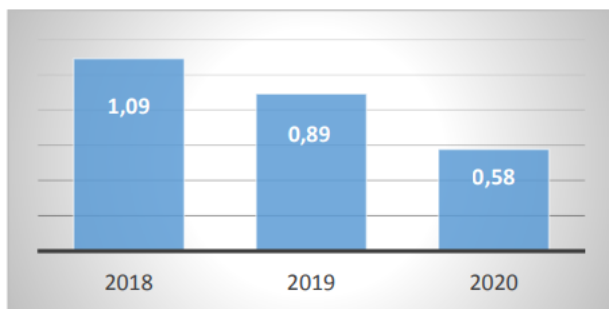
activity, debt, profitability and market value (Brigham et al., 2011).

Profitability ratio can be used to see the value of the firm's ability to seek profit (Brigham et al., 2011). The aim is to be able to see the performance of the firm within a certain time frame, both declines and increases and at the same time find the causes of these changes. In general, the more profitable a company is at making earnings, the better that firm is able to use its assets productively. Profitability ratio was proxied Return On Total Assets (ROA). And then Liquidity ratio indicates the firm's ability to pay obligations or pay short-term debt. According to Horne (2012) Analysis of a company's liquidity is based on its capacity to pay short-term commitments when they become due.. This ratio measures of short-term liabilities with current assets available to meet these short-term obligations.

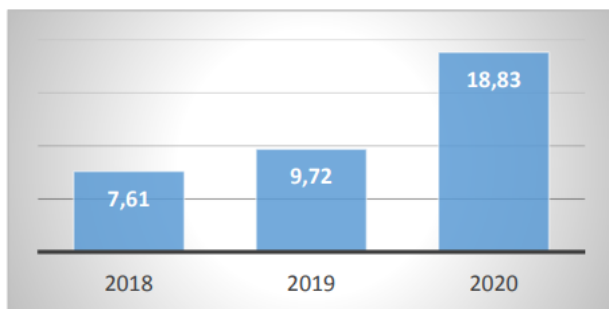
The analyzing Liquidity in this research is measures by the Quick Ratio (QR) and Current Ratio (CR). According to (Brigham et al., 2011) activity ratio or asset management ratio is a measure to see how effective a firm is in managing assets, of course in order to achieve economic benefits. The activity ratio in this research used Total Assets Turnover (TATO). And the market ratio is an margin that shows important firm information that is disclosed on a per share. Price Earning Ratio (PER) and Price to Book Value are the metrics used in this study to determine the market value ratio

From the graph, 1.1 it could be seen that the average Return On Assets in textile and garment manufacturing companies in 2018 to 2020 decreased from 1.09 to 0.58. Return on Asset (ROA) measures a company's management's capacity for profit (profit). Small ROA value is a sign that the company is getting worse at managing its assets to make a profit, which will lead to falling stock prices.

Graph 1.1 Average Return on Assets (ROA) in the Indonesia Stock Exchange's textile and apparel sector

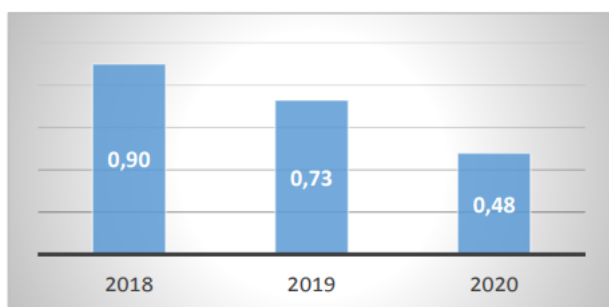


Graph 1.2 Average Debt to Equity Ratio (DER) in the Indonesia Stock Exchange's textile and apparel sector



From the graph 1.2, It is clear that between 2018 and 2020, the average Debt to Equity Ratio for textile and apparel manufacturing enterprises climbed from 7,61 to 18,83. This ratio indicates each own capital used for debt guarantees. The increase in this ratio indicates that the firm's funding obtained from lenders is increasing. And not from the income of firm. Investors usually don't like this because their assets are less secure when loss

Graph 1.3 Average Total Assets Turnover (TATO) in the Indonesia Stock Exchange's textile and apparel sector



From the graph 1.3 it could be seen that the average Total Assets Turnover in textile and garment manufacturing companies in 2018 to 2020 decreased from 0,90 to 0,48. TATO measures the efficiency of the use of assets as a whole during one period. This also shows that TATO measures the turnover of all assets firm and measures how much sales are obtained from each assets (Gunawan, 2013). A small TATO value indicates that the firm's performance in terms of asset turnover is not good. Thus the firm may getting a small profit. In other words, companies have problems in their performance. From the theoretical explanation and some empirical data obtained, the researcher conducted a study entitled the perspective of financial ratios.

Literatur Review

Capital market is one of the forums for the community to make investments Capital market will be directed to increase the community in raising money to assist financing for development. In addition, the capital market can also be explain about means of funding for companies and government institutions to obtain additional capital, and as a means for investors to invest. The funds traded are used for long-term business development. The place where the offer and sale of funds is carried out by an official institution in indonesia called by stock exchange Indonesia.

Financial Ratio

Debt to Equity Ratio (DER)

DER can provide information on how much equity from the shareholders is used to cover the firm's overall debt so that investors at the General Meeting of Shareholders (RPS). Shareholder can agree on the amount of firm funds financed by debt so that the appropriate return can still be obtained.

Total Asset Turnover (TATO)

Total Asset Turnover (TATO) gauges how well a company utilises its assets to produce

revenue. In other words, If asset turnover is enhanced, sales volume might increase while total assets remain the same. TATO reflects the efficiency of asset management to earn income from the firm operational. Too much inventory is unproductive and reflects an investment with low or zero returns (Brigham et al., 2011). If inventory is overload, it will cause increased maintenance costs to be incurred by the firm. The risk of physical damage becomes high so that it will reduce profits. So it can be concluded that with a high inventory turnover, sales can be said to be smooth so that it can increase profits.

Return on Asset (ROA)

Return on asset is an analyze that can measure value of the firm to provide returns on profits from assets owned by the firm with the expected profit, in other words this ratio shows firm performance to generate profits from the activities carried out. "Return on assets (ROA) shows the firm's ability to use all of its assets to generate profit after tax" (Sudana, 2011). Which is the higher the ROA, the more effective an asset is in producing net profits. The worth of the company to investors will so further increase. Due to the higher rate of return, the company will have greater value to investors as its attractiveness increases. Consequently, ROA will impact the company's stock price.

Quick Ratio

Liquidity explain about ability of firm to fill its short-term obligations well and on time. The higher value of the liquidity ratio, implies the state of the firm is in a liquid state. In other reference said that liquid show condition of firm is declared well and in good condition because the firm can be able to pay off short-term debt (Illahi et al, 2020). while illiquidity is related to the longer stages that are passed to get to cash, and also the uncertainty of the value of inventories. For this reason, inventories are excluded and current assets are used for value of quick ratio. Therefore, if this value rises, it will have a

favorable impact on rising stock prices. Quick ratio indicates how effective the firm is in paying off short-term debt without being associated with inventory sales (Kasmir, 2015)

Price Earning Ratio

According to Fitri (2016), Price Earning Ratio (PER) show ratio between the stock price at a certain time with earnings per share. This ratio wants to see the relationship between the firm's internal performance in the form of net income and how investors value the firm's stock. Companies that have a high PER, explain that the firm has a high growth rate, this shows that the market expects the bigger profit later, on the other hand companies that have a low PER will have a low growth rate. Low value of PER can be influenced by various factors, one of which is because the stock price tends to decrease and another factor is the firm's net income increases

Price Book Value

According to Brigham (2020), The ratio between the stock price and book value is known as price to book value (PBV). PBV serves as a way to compare the market performance of a stock price to its book value. In addition, PBV demonstrates the company's capacity to generate value compared to the amount of capital spent.

Current Ratio

According to Brigham (2020), Current ratio (CR) is a margin between current assets to current liabilities. This percentage shows converted cash that cover by current liabilities in the near future. The ability of the company to pay its short-term bond increases as the ratio of current assets to current liabilities rises. This indicates that the firm risk is not large and investors will like this.

Hypothesis

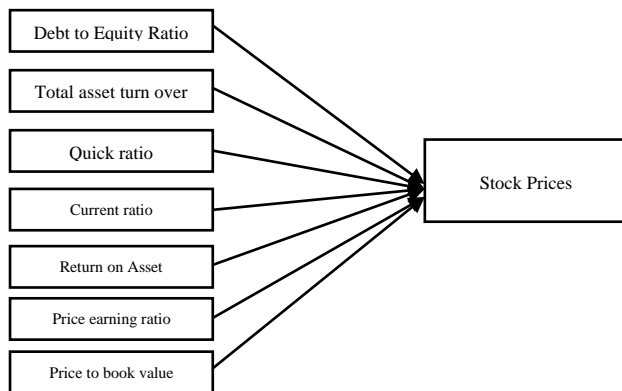


Figure 1. Theoretical Framework

A higher debt-to-equity ratio indicates a greater danger to the company's liquidity. The business will benefit from having a lower Debt to Equity Ratio, which will raise the stock price. However, It should be mentioned that the firm's rate of return on investment will rely on the future state of the economy. If economic conditions improve, the rate of return on investment also tends to improve in the future, so that firm can afford to pay coupon and principal loans of their debt. On the other hand, if the crisis happen, firm will suffer losses because of declining revenues, the firm will have to pay a fixed amount of debt.

H1 : Debt to equity ratio has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

In his research, (Gunawan, 2013) explains that total asset turnover is one of activity analyze that used to measure the effectiveness of assets. Sales are income from products or services sold, so the amount of profit a firm earns for some time depends on the size of these sales, in other words it is assumed that firm has higher sales means firm has a good prospects because it will earn a higher net income. Based on the results of previous research by (Gunawan, 2013) explained relationship between total asept turnover and profit growth. When the cycle of asset turnover was short that means The growth in net income because The business can use its resources to

boost sales. This will have an effect on revenue and indicates effectivity the firm's asset management that is able to have high performance so that it can increase net income and also can effect on increasing the rate of return investors. Thus the hypothesis in this research as follows:

H2 : Total Assets Turnover has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange

Quick ratio (QR) is a ratio that explain performance of firm to pay off short-term debt without being linked to the total inventory. The higher the quick ratio, the better because this explains that the firm is able to pay debt. In Clara's research (2013), partially there is a positive impact between the quick ratio and stock prices. Likewise, the research results of Amanah et al (2014) show that there is an effect between the quick ratio and stock prices. Thus the hypothesis in this research is as follows:

H3 : Quick Ratio has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

Current Ratio measures performance of firm to spent short-term debt using current assets. Raising current ratio value reflects the more liquid the firm. This is show the firm can pay short term debt very well and can make higher credibility of firm which is turn can increase the stock price. Based on previous research by (Wuryaningrum, Reni, 2015) explains that the Current Ratio has a positive impact on stock prices.

H4 : Current Ratio has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

(Tandelilin, 2010) states that return on assets describes the extent to which the firm's assets can make profits. The higher the ROA ratio indicates that To generate net income after taxes, the company is more efficient in using its assets, and it can also mean that the firm's performance is

more effective. When ROA value is higher that means firm has good performance in investor perspective and have an impact on the firm's stock price in the capital market, in other words ROA will affect the firm's stock price. Rahmi A (2013) do research about ROA and the stock price, The study's findings revealed that ROA has a favorable impact on stock prices.

H5 : Return on Assets has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

According to Hanafi (2005) Price Earning Ratio (PER) is an indicator that estimating the value of shares, determining the value of shares in the future and determining the amount of capital in shares. Based on previous research by (Iwellen, 2004) explain that price earning ratio can predict market return. In addition, based on the results of previous research by (Zuliarni, 2012) explains that the Price Earning Ratio has a positive effect on stock prices.

H6 : Price Earning Ratio has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

According to (Sari, 2016) explain that Price to Book Value (PBV) measures how much the market values a company's books. The higher the PBV value indicates the market believes in the prospects of the firm. The higher PBV value, the higher the firm's performance is assessed by investors with the capital that was put into the business. Therefore, it can be concluded that the higher the PBV, the higher the level of market confidence in the prospects of the firm, and it will be an attraction for investors to buy stock, so that demand will increase, then make the share price up.

H7 : Price to Book Value has influence on stock prices in Textile and Garment sector on the Indonesia Stock Exchange.

Methods

This research uses quantitative data analysis in the form of stock price and other variable. Researchers use data by the Indonesia Stock Exchange Website. The population of this research are textile and garment sub-sector manufacturing firms listed on the Indonesia Stock Exchange in Jakarta, while the sample taken from the population is Textile and Garment companies in the period 2018 to 2020. This study uses a purposive sampling technique of data with some criteria:

- a. Firms on Textile and Garment sector of the firm between 2018 and 2020, listed on the Indonesia Stock Exchange (IDX).
- b. Has Financial statement in Rupiah
- c. Has data with all variable like Quick Ratio, Debt to Equity Ratio, Total Assets Turnover, Return On Assets, Current Ratio, Price Earning Ratio dan Price to Book Value

From the results of the sample selection conducted in this research, 16 sample (firm) were obtained. Panel data regression analysis using Eviews data processing tools was the analytical approach used in this research. Panel data is combination of time series data and cross section data. The equation of the research model is as follows:

$$\text{Stock Price} = \alpha + \beta_1\text{DER} + \beta_2\text{TATO} + \beta_3\text{QR} + \beta_4\text{ROA} + \beta_5\text{CR} + \beta_6\text{PER} + \beta_7\text{PBV} + e$$

Result and Discussion

Before do the panel data regression test, the data was first tested for classical assumptions test. The purpose of the classical assumption test is to see if the data is the BLUE. This test as one of the data quality test tools includes the assumptions of multicollinearity, autocorrelation, heteroscedasticity and normality. Based on normality test in this research was carried out by looking at the results of Jarque bera value on the graph, the results were 1.810091 where the value

was > 0.05 . Thus, it can be concluded that the data is normally distributed.

Furthermore, the heteroscedasticity test with the aim of testing whether this research has different data variants from the residuals of one observation to another observation, in this research using the Glejser test. The multicollinearity test indicates correlation between the independent variables in regression model. The multicollinearity test can be seen from the tolerance and VIF values for each research variable. And the last is the autocorrelation test is used to see whether the regression model in the study has a correlation with the residual error in the research year period with the previous year period. In this study, the autocorrelation test used was the DW test. An explanation of the classical assumption test is in Table 1.

Table 1 Classical Assumption test

No	Classical Assumption Test	Method	Result	Description
1	Normality	Jarque Bera	1,810091	Data is normally distributed
2	Heteroscedasticity	Glejser test	Value of all variable was $>0,05$	No heteroscedasticity problems were found
3	Multicollinearity	VIF	The coefficient value of each variable has a coefficient value of <0.9 .	No multicollinearity problem found
4	Autocorellation	Durbin-Watson (DW-Test).	1,790242	No autocorellation problem were found

Source : Processed Data, 2022

After the classical assumption test was carried out, it was followed by a panel data regression test. The panel data regression model used in this research is the Fixed effect model.

From the regression test results obtained, it can be explained total assets turnover variable is

significant at level of significant 5% with a value of 0.024 with a positive coefficient of 133.588 which means that total assets turnover to stock prices has a positive effect. The better the value of the TATO explain the firm's ability to manage assets is also good, in this case it shows the firm's performance will be better so that it makes investors interested in buying firm stock and in the end the stock price will rise. The results of the testing in this research indicate that the second hypothesis in this research is accepted. These results are in line with research by (Banchuenvijit, 2016) that explain total assets turnover ratio has a positive effect to stock price.

The quick ratio variable is significant at level of significant 1% with a value of 0.0007 and has a positive coefficient of 147,436 which means that the quick ratio to stock prices has a significant positive effect. The results of the testing in this research indicate that the third hypothesis in this research is accepted. And variable of return on assets is significant at level of significant 10% with 0,0982 and has a positive coefficient of 10.313 which means that relationship return on assets to stock prices has a positive and significant effect.

The higher value of return on asset explain the better the productivity of assets to get net profits or profits. Which is can increase the value of firm and has good performance to investors. Thus makes the firm more attractive to investors, because the rate of return will be even greater. And then also have an impact that stock price of the firm in the capital market will also increase because the demand for shares in the market exceeds the supply. The results of the testing in this research indicate that the fifth hypothesis in this research is accepted. Result of price earning ratio variable at level of significant 5% has a positive coefficient value of 1.176 It indicates that the price-earnings ratio has an impact on stock prices that is both favorable and meaningful.

Table 2. Regression Test Results

Dependent Variable	Independent Variable						
	DER	TATO	QR	CR	ROA	PER	PBV
Stock Price	1,39 (0,12)	133,59 (0,02)**	147,43 (0,00)***	-1,01 (0,28)	10,31 (0,09)*	1,18 (0,03)**	0,38 (0,04)**
R²	0,95						

*** = level of significant 0,01
 ** = level of significant 0,05
 * = level of significant 0,1

The results of the testing in this research indicate that the sixth hypothesis in this research is accepted. The price to book value variable with a significant value at level of significant 5% has a positive coefficient of 0.384 which means that the price to book value has a positive and significant effect on stock prices, indicating that the seventh hypothesis in this research is accepted.

While from the research results obtained for the variables debt to equity ratio and current ratio do not have an effect on the stock price. he results of this test have not been able to prove the first hypothetical statement in this study which states that the debt to equity ratio has a significant negative effect on stock prices that means, the first hypothesis is rejected. This is because the variable debt to equity ratio is a ratio that compares the amount of debt to equity. debt to equity ratio is often used by investors to see the comparison of the company's debt value to the amount of equity held. The higher value of DER, it can be assumed that the firm has a higher level of risk to the firm's liquidity. And the smaller value of DER, the better for the firm and reflect on the stock price will increase.

However, this research shows that investors do not consider Debt Equity Ratio in investing in a company. These results are supported by the results of research conducted by (Clara, 2013) stating that there is no influence between DER on stock prices. In the Current Ratio variable, the better the percentage of the current ratio means liquidity of the firm well too and that means firm can pay short term debt very well and on time.

This is able to increase the credibility of the firm on creditors. Creditors can consider providing loans for the company without having to look at the current ratio variable of the company. the company's liquidity factor is seen from other variables besides current ratio. So in this research it shows that the current ratio is not used by investors as a consideration before investing in a company. Previous research by is used to support the findings of this research (S. A. dan Y. Fitri, 2016) which explain that the current ratio has no significant effect on stock prices.

Conclusion

This research investigates how financial ratios affect stock prices on the Indonesia Stock Exchange in the textile and garment sector. The ratio variables used in this research are Debt to Equity Ratio (DER), Quick ratio (QR), Total Assets TurnOver (TATO), Return on Asset (ROA), Current Ratio (CR), Price Earning Ratio (PER), and Price to Book Value (PBV). From the results of the tests carried out, there are several variables that have an influence on stock prices in companies that are listed in the garment and textile sector. such variables price book value, price earning ratio, quick ratio, return on assets and total asset turnover and there was no effect of Debt to Equity Ratio and Current ratio on stock prices in garment and textiles companies for 2018-2020. One way to assess performance can be done by measuring the level of existing financial ratios. Financial performance shows the financial condition of a business Well positioned concerning funding and payment aspects, typically measured in terms

of capital adequacy, liquidity, and corporate profitability metrics (wina nofrima Fitri, 2023).

While the suggestions for further research are regarding the time of the research, you can use research with a longer year to see if this test is still valid in the same sector, and for novelty the research can use the latest year and be adjusted to the phenomena and trends of investors in their time.

References

- Agirman, E. & Yilmaz, O. (2018). VALUE OF FINANCIAL RATIOS IN PREDICTING STOCK RETURNS: A STUDY ON BORSA ISTANBUL (BIST). *Journal of Business Economics and Finance*, 7(2), 191–199. <https://doi.org/DOI:10.17261/Pressacademia.2018.847>
- Banchuenvijit, W. (2016). Financial ratios and stock prices: Evidence from the agriculture firms listed on the stock exchange of Thailand. *UTCC International Journal of Business & Economics*, 8(2), 23–29.
- Barnes, paul. (1987). The analysis and use of financial ratios. *Journal of Business Finance and Accounting*, 14(4), 449.
- Brigham, F, E., & Houston. (2011). Dasar-dasar Manajemen Keuangan Terjemahan. Edisi 10. Jakarta: Salemba Empat.
- Clara, R. (2013). Pengaruh Kinerja Keuangan Perusahaan Terhadap Harga Saham Sejak Krisis Keuangan Global Tahun 2008 (Studi Empiris pada Perusahaan Perkebunan Kelapa Sawit yang Terdaftar di Bursa Efek Indonesia). *Jurnal Ilmiah Universitas Bakrie*, 1(4).
- Djajadi, I. (2020). <https://www.cnbcindonesia.com/>
<https://www.cnbcindonesia.com/market/20201230142438-17-212584/rekor-tutup-tahun-ipo-tembus-51-investor-capai-38-juta>
- Fathonah Eka Susanti;Titi Laras. (2021). Analysis of PER, DER, and ROA on the Textile Companies' Performance Listed on Indonesian Stock Exchange. *Kinerja*, 25(1), 142–150.
- Fitri, wina nofrima. (2023). Financial Performance of Infrastructure Companies Before and During the Covid-19. *Jurnal Manajemen Universitas Bung Hatta*, 18(1), 114–123.
- Fitri, S. A. dan Y. (2016). Pengaruh Kinerja Keuangan terhadap Harga Saham Food and Beverages di BEI. *Jurnal Ilmu Dan Riset Manajemen*, 5(4), 1–16.
- Gunawan, A. dan S. F. W. (2013). Pengaruh rasio keuangan terhadap pertumbuhan laba pada perusahaan perdagangan di Indonesia. *Jurnal Ilmiah Manajemen Dan Bisnis*, 13(1), 63–84.
- Horne, J. C. V. dan J. M. W. (2012). *Prinsip-Prinsip Manajemen Keuangan*. salemba empat.
- Kasmir. (2015). *Analisis Laporan Keuangan* (5th ed.). RajaGrafindo Persada.
- lewellen, jonathan. (2004). Predicting returns with financial ratios. *Journal of Financial Economics*, 74(2), 209–235.
- Rahmi A., A. M. dan J. (2013). Pengaruh Faktor-Faktor Fundamental dan Risiko Sistematis Terhadap Harga Saham (Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2007-2009). *Jurnal Wira Ekonomi Mikroskil*, 2(2), 1–15.
- Sanjaya, S. (2017). Analisis DuPont System Dalam Mengukur Kinerja Keuangan PT. TASPEN (Persero). *Jurnal Riset Akuntansi Dan Bisnis*, 17(1), 15–32.
- Sari, N. (2016). Pengaruh Rasio Keuangan Terhadap Harga Saham Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2010-2014. *Jurnal Adminika*, 2(2), 20–35.
- Tandelilin, E. (2010). portofolio dan investasi. In *Kanisius*.
- Wuryaningrum, Reni, and A. B. (2015). Pengaruh rasio keuangan terhadap harga saham pada perusahaan farmasi di BEI. *Jurnal Ilmu Dan Riset Manajemen*, 4(11), 142–150.

Zuliarni, S. (2012). Pengaruh kinerja keuangan terhadap harga saham pada perusahaan mining and mining service di Bursa Efek Indonesia (BEI). *Jurnal Aplikasi Bisnis*, 3(1), 36–48.