

THE EFFECTS OF FINANCIAL PERFORMANCE ON STOCK RETURNS: EVIDENCE OF MACHINE AND HEAVY EQUIPMENT COMPANIES IN INDONESIA

Andry Priharta, Universitas Muhammadiyah Jakarta

Immas Nurhayati, Universitas Ibn Khaldun

BogorFebrian Vingky Nurfitriana, Universitas Mercu Buana

Endri Endri, Universitas Mercu Buana

ABSTRACT

This study was made to determine the effect of Current Ratio (CR), Total Assets Turnover (TAT), Return on Assets (ROA), Debt to Equity Ratio (DER) on stock returns in the machinery and heavy equipment sub-sector companies listed on the Stock Exchange Indonesia (IDX) in the period 2014 - 2018. Stock returns are calculated based on changes in closing stock prices and estimated influence of financial performance factors using the panel data regression method. Based on empirical findings show that financial performance that has been proxy using; CR, TAT, ROA, and DER do not affect stock returns. The results of the study have implications that the company's financial performance is not an important consideration for investors in the decision to buy shares in the Machinery and Heavy Equipment sub-sector company. In many studies, stock prices are much influenced by macroeconomic variables, such as; exchange rates, inflation, interest rates, and oil prices.

Keywords: Stock return, Current Ratio, Total Asset Turnover, Return on Asset, Debt to Equity Ratio.

JEL Classifications: G1, G3

INTRODUCTION

Heavy equipment and machine sub-sector companies are included in various industry sector groups which are listed on the Indonesia stock exchange. The multifarious industry sector is the largest contributor to strengthening the Composite Stock Price Index on the Indonesia Stock Exchange (IDX). Based on idx.co.id data, as of May 2020 the multifarious industry sector experienced the biggest increase of 3.9%, followed by infrastructure which increased 2.44% and mining which increased 2.42%. Positive developments in the various industry sectors, especially the heavy equipment and machinery sub-sector, have had an impact on rising share prices.

The increase in stock returns of heavy equipment and machine companies is a reflection of a good company's financial performance. Financial performance is measured using a ratio; liquidity, activity, solvency and profitability, based on financial statements from the heavy equipment and machinery sub-sector during the period 2014-2018 showed an improved performance. Liquidity ratios show high yields, meaning companies in the heavy equipment and machinery sub-sector are able to meet or pay off their short-term obligations fairly well. The activity ratio shows that the machinery and heavy equipment sub-sector company is able to use

its assets quite efficiently. The solvency ratio shows that the machine and heavy equipment company has a high enough number so that this causes the company to have a greater obligation than the capital it has. The profit gained by shareholders from the relatively small income is shown through the calculation of ROA and ROE which have relatively small values.

Investors' decision to benefit from shares held over a certain period of time takes into account the company's financial performance more (Fathony et al., 2020). Stock returns from the perspective of large investors are sourced from rising stock prices from one period to the next is known as capital gains, while minority shareholders target the company's ability to distribute dividends, calculated through dividend yields. The shareholders try to reinvest the profits generated with the consequence of not distributing dividends with the aim that the company's future prospects are better and will have an impact on future stock price increases. Share prices represent investors' expectations regarding future cash flows, the company's ability to create value for shareholders (Endri et al., 2020).

This study aims to estimate the effect of traditional financial factors on stock returns. Financial factors are considered through ratios provided by the annual financial statements, which consist of; liquidity, activity, solvency, and profitability on stock returns using the panel data regression method in the Machinery and Heavy Equipment sub-sector companies included in the manufacturing industry listed on the Indonesia Stock Exchange (IDX)

LITERATURE REVIEW

Empirical research related to the effect of financial performance on stock returns has been done a lot but it still gives contradictory results. Research by Setiyawan & Pardiman (2017) on consumer goods manufacturing companies listed on the IDX for the 2009-2012 periods showed that CR, ROE and Time Interest Earned had a positive effect on stock prices, while Inventory Turnover had no effect on stock prices. CR, Inventory Turnover, Time Interest Earned and ROE simultaneously influence stock prices. Research from Wardoyo & Veronica (2013) shows that the resulting ROA and ROE have a significant effect on company value, while the size of the board of commissioners, the independence of the board of commissioners, the number of audit committee members and CSR have no significant effect on the value of the company. And these results are also consistent with Study of Nurdin (2018) which says that the results of ROA and DER do not significantly influence stock returns.

In the research of Lutfi & Sunardi (2019) by using multiple linear regression analysis methods and the coefficient of determination and partial testing (t test) and simultaneous (F test) using the Eviews9 application can obtained negative and significant CR results, positive and significant ROE, and positive and insignificant sales growth. And research from Sondakh et al. (2015) obtained research results showing that Current Ratio (CR), Debt to Equity Ratio (DER), Return on Assets (ROA) and Return on Equity (ROE) simultaneously have a significant effect on prices stock. Then there is also research from Amalya (2018) obtaining results using the (F test) shows that company performance as measured by ROA, ROE, NPM and DER has a significant effect on stock prices. Partially with the (t test) it was concluded that partially the ROA, ROE and DER variables did not significantly influence the stock price, while the NPM variable significantly affected the stock price. Benyamin & Endri (2019) tested the effect of ROE, EPS, DER, and market share (MS) on stock returns on buildings construction sector companies listed on the Indonesia Stock Exchange for the period 2012-2016 use a random effects regression model. Empirical findings indicate that ROE and MS have positive effect; EPS has a negative effect, while DER has no negative effect on stocks return.

This is also the same as study of Murhadi (2013) which says that the results of idiosyncratic risk have a significant negative effect on stock returns, stock liquidity has a significant positive effect, and company size has a significant negative effect. The results of this study are consistent with the results of the research Wijaya (2008) which says that the independent variables (ROE, PER, BVPS, and PTBV) do not significantly influence the dependent variable. In contrast to the research of Ulupui (2007) which says that the variables used in the test CR and ROA are positive and have a significant effect on stock returns, and in research of Asmi (2014) the results obtained are CR, DER, TAT and ROA not significantly influence stock returns but price to book produces results that have a significant effect on stock returns. Endri et al. (2019) conducted a study of the effect of financial ratio factors on stock returns with a sample of food and beverage sector companies listed on the Indonesia Stock Exchange in 2013-2017 using the panel data regression method. Partial testing shows that leverage affects the movement of stock returns negatively, whereas ROA and EPS have positive effects. Conversely, the CR and PER variables do not affect the movement of stock returns. Test results cumulatively shows that all independent variables simultaneously influence stock returns.

RESEARCH METHODS

This study uses secondary data based on company financial reports published by the Indonesia Stock Exchange through www.idx.org. The sample used in this study was three companies in the machinery and heavy equipment sub-sector listed on the Indonesia Stock Exchange during the period 2014-2018 that published complete and consistent financial statements. Research focus on estimating the effect of financial performance on stock returns (dependent variable), where financial performance variables (independent variables) consist of; Current Ratio (CR), Total Asset Turnover (TAT), Return on Assets ROE) and Debt to Equity Ratio (DER). The method used to estimate the effect of financial performance variables on stock returns is a panel data regression analysis. Panel data regression method consists of three models, namely; Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) (Latuconsina, 2017). To determine the selected model which is then used to estimate and analyze the effect of financial performance variables on stock returns based on the model selection test, namely; Chow Test, Hausman Test, and Lagrange-Multiplier Test

Independent Variable (X)

Is a variable that is the cause of the emergence of the dependent variable? Following are the independent variables used:

(a) Current Ratio

Current Ratio is intended as a reference to measure a company's ability to pay off liabilities in the short term (Moeljadi, 2006:68). The higher the value of CR, the greater the industry can pay its short-term liabilities, this way the company can be said to be a good company (Faisal et al., 2017).

$$CR = \frac{\text{Current Asset}}{\text{Current Debt}} \times 100\%$$

(b) Total Aset Turnover

For the measurement of a turnover of all assets collected and calculate the sum of the sales results obtained from the assets of each rupiah (Wijaya, 2017).

$$TAT = \frac{Sales}{Total Assets}$$

(c) Return on Aset

This ratio aims to see the financial potential of a company in generating profit, income, profits, assets, and share capital (Faisal et al., 2017).

$$ROA = \frac{Net Income}{Total Assets}$$

(d) Debt to Equity Ratio

Debt to Equity Ratio is a comparison between the amount of debt and the amount of equity, the higher the DER value, the greater the existing debt in the company (Mahardika & Marbun, 2016).

Dependent Variable (Y)

The dependent variable is the stock price of each industry. Stock prices are investments that will change in value over time (from time to time). For the value of the stock price used as research material is close priced at the end of each year from 2014-2018.

Measurement of Stock Returns

Stock return is a main goal of a person or company in investing. In this method the measurement of stock returns will be used as the dependent variable. Which formula is as follows:

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}}$$

For Information:

$R_{i,t}$ = Current Return

$P_{i,t}$ = Current stock price

$P_{i,t-1}$ = Share price last period

Capital gains occur if the current stock price $P_{i,t}$ greater than the share price last period $P_{i,t-1}$ capital-gain. Conversely, if you experience a drastic reduction or loss is usually called capital-loss.

Data Analysis Method

In this study the method used is panel data regression analysis, following equation :

$$RS = \alpha + \beta_1 CR + \beta_2 TAT + \beta_3 ROA + \beta_4 DER + e$$

Information:

α = A constant
 $\beta_1 \beta_2 \beta_3$ = The coefficient of the independent variable
 RS = Stock return
 CR = Current Ratio
 TAT = Total Assets Turnover
 ROA = Return on Assets
 DER = Debt to Equity Ratio
 e = Term error

Estimation Model

In the panel data regression analysis, there are three models that aim to choose a useful method later. The following estimation model:

1. Common effect model

CEM is a model that is often used in testing, because it only combines the time series and cross data only. Regardless of the time or individual dimensions (Sugianto et al., 2020).

2. Fixed effect model

FEM is any object that has an intercept that will change later, while the slope will continue to remain (Ratnasari et al., 2014).

3. Random effect model

Random effect models are usually used in any testing, but heterogeneity testing.

By using these three models the writer can do the next stage, which is to do the testing method, where this method will ultimately produce the best model for use.

Estimation Method

Estimation method is testing using three test methods, namely:

1. Chow test

By comparing the two models, which aims to be able to see which model is good to use. The combination of choosing the best model that can be used. Between the common effect model and the fixed effect model with a prob value of 0.05 (Utami & Darmawan, 2018).

2. Hausman test

Test between the two modeling which is done by the chow and REM test. Usually done between REM and FEM with a standard prob value of 0.05 (Utami & Darmawan, 2018).

3. Lagrange multiplier test

Is the last of the three testing methods, where this test is done by getting the estimation model results from the chow test and the hausman test? Usually this test involves two estimation models, namely CEM with REM with a prob value of 0.05 (Utami & Darmawan, 2018).

RESULTS AND DISCUSSIONS

Descriptive Data

Researchers have prepared some data from companies in the machinery and heavy equipment sub-sector. The following Table 1 is the data used for research.

Table 1 DESCRIPTIVE DATA						
Company Code	Year	Stock Return	Current Ratio	Total Aset Turnover	ROA	DER
AMIN	2014	0,015625	1,415409425	0,706946954	0,063151412	1,121209821
AMIN	2015	0,015384615	1,834566836	0,59596108	0,058333129	0,688872014
AMIN	2016	1,075757576	2,312989568	0,75552107	0,094325745	0,559821709
AMIN	2017	0,459854015	2,208101907	0,846738174	0,127754281	0,667825073
AMIN	2018	0,07	1,783034514	0,682736589	0,108290938	0,981493972
GMFI	2014	0,176923077	2,063228905	1,030830002	0,070897407	1,840022496
GMFI	2015	0,013071895	2,298058817	0,976343106	0,115608913	1,548984817
GMFI	2016	-0,003225806	2,236088279	0,878156525	0,130464605	1,5649199
GMFI	2017	0,029126214	2,97475685	0,814764951	0,094493676	0,763149202
GMFI	2018	-0,320754717	2,027285021	0,632982347	0,041135197	1,255894705
KRAH	2014	0,038461538	1,479842598	0,595520754	0,065236426	1,619080071
KRAH	2015	1,703703704	1,513281534	0,530807539	-0,014290966	2,021635757
KRAH	2016	0,077625571	1,124952171	0,522033525	0,001381034	2,360735311
KRAH	2017	0,165254237	1,012299339	0,407560109	-0,083223161	4,151033531
KRAH	2018	-0,112727273	1,000591795	0,428773561	-0,110107643	9,324334969

Source: www.idx.co.id (2020)

Panel Data Regression Analysis

Panel data regression analysis is the analysis used as a method for analyzing data by using the chow, hausman, and lagrange testing methods. Which is where the authors use four independent variables namely Current Ratio, Total Asset Turnover, Return on Assets, and Debt to Equity Ratio. And Stock Return as the dependent variable, using three effects models. Following are the results of the data using these three models (Table 2, Table 3 & Table 4):

Table 2 COMMON EFFECT MODEL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.375349	0.910457	0.412265	0.6888
CR	0.136370	0.471265	0.289370	0.7782
TAT	0.274443	1.616838	0.169741	0.8686
ROA	-5.459940	5.749008	-0.949719	0.3646
DER	-0.152099	0.128934	-1.179669	0.2654

Source: Data Processed (2020)

Table 3				
FIXED EFFECT MODEL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.390605	1.169517	-2.044096	0.0752
CR	0.843811	0.435141	1.939166	0.0885
TAT	2.666590	1.498194	1.779869	0.1130
ROA	-8.762206	4.922537	-1.780018	0.1129
DER	-0.158126	0.099560	-1.588256	0.1509

Source: Data Processed (2020)

Table 4				
RANDOM EFFECT MODEL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.380870	1.060320	-0.359203	0.7269
CR	0.328089	0.469171	0.699295	0.5003
TAT	0.961549	1.624418	0.591935	0.5670
ROA	-6.770335	5.704672	-1.186805	0.2627
DER	-0.153315	0.121425	-1.262638	0.2354

Source: Data Processed (2020)

By using three effect models it aims to determine the best model that will be used in this study, by using the evIEWS10 application the writer can process the data and can do several tests. Here are the results of the data and its hypotheses:

Table 5			
RESULT CHOW TEST			
Cross-section F	4.391684	(2,8)	0.0516
Cross-section Chi-square	11.114202	2	0.0039

Source: Data Processed (2020)

H_0 = CEM Model (Common Effect Model) selected (if Prob. > 0,05)

H_1 = FEM Model (Fixed Effect Model) selected (if Prob. < 0,05)

Based on the chow test results Table 5, the prob value for both models has a prob value > 0.05. The common effect model is a good model to choose from. But this model is not necessarily good, because it must compare all models to be able to see the final results of a good model used. That way there is a need for a multiplier test diagram.

Table 6			
RESULT HAUSMAN TEST			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	4	1.0000

Source: Data Processed (2020)

Based on the results of the hausman test Table 6 seen, the value of 1.0000 > 0.05. A good random effect model is chosen. But this model is not necessarily good, because the random effect model must compare with the common effect model. That way it is necessary to have a lagrange multiplier test.

Table 7			
RESULT LAGRANGE MULTIPLIER TEST			
Null (no rand. effect)	Cross-section	Period	Both
Alternative	One-sided	One-sided	
Breusch-Pagan	0.161117	0.897924	1.059040
	(0.6881)	(0.3433)	(0.3034)
Honda	-0.401393	-0.947588	-0.953874
	(0.6559)	(0.8283)	(0.8299)
King-Wu	-0.401393	-0.947588	-0.874827
	(0.6559)	(0.8283)	(0.8092)
GHM	--	--	0.000000
	--	--	(0.7500)

Source: Data Processed (2020)

Based on the Table 7 of the Lagrange multiplier test results it can be seen that the value of the bre-breach prob is 0.6881, which means that H_1 is rejected and H_0 is accepted. Then a good common model effect is chosen. So it can be concluded, a good model is the common effect model. Following (Table 8) are the results of data from the common effect model:

Table 8				
RESULT COMMON EFFECT MODEL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.375349	0.910457	0.412265	0.6888
CR	0.136370	0.471265	0.289370	0.7782
TAT	0.274443	1.616838	0.169741	0.8686
ROA	-5.459940	5.749008	-0.949719	0.3646
DER	-0.152099	0.128934	-1.179669	0.2654

Source: Data Processed (2020)

Table 9			
R-SQUARED (R^2) TEST & F-TEST			
R-squared	0.139409	Mean dependent var	0.226939
Adjusted R-squared	-0.204828	S.D. dependent var	0.513178
S.E. of regression	0.563288	Akaike info criterion	1.951151
Sum squared resid	3.172937	Schwarz criterion	2.187168
Log likelihood	-9.633634	Hannan-Quinn criter.	1.948637
F-statistic	0.404979	Durbin-Watson stat	2.100805
Prob(F-statistic)	0.801083		

Source: Data Processed (2020)

Based on the tests that have been done (Table 9), in this study the researchers used a hypothesis that applies to the F & t test, the hypothesis is as follows:

H_0 = Not significant

H_1 = Significant

In the t test or partial test it can be seen that the results of the t test show the independent variable value > 0.05 , meaning that the value of Prob. $> \alpha$ then H_0 is accepted and H_1 is rejected. Or it can be said that the independent variable has no significant effect on the dependent variable. In this F test the researcher uses Prob (F-Statistic) or p-value, wherein the Prob (F-Statistic) must be compared with a significant level or α ($\alpha = 0.05$). Then the F test results or the

simultaneous test has a result of 0.80 this means that $\text{Prob}(F - \text{Statistics}) > \alpha$ then H_0 is accepted and H_0 is rejected. Or it can be said that the independent variable has no significant effect on the dependent variable. And for the R-Squared (R^2) test the results obtained from R-Squared (R^2) are 0.139409, meaning that the dependent variable can affect the dependent variable by 13.94% (0.139409). While the remaining 86.06% (0.860691) is influenced by other variables outside the study. So the results of the R^2 test are the independent variables do not significantly influence the dependent variable. Because the hypothesis in this R^2 test is if the value of R-Squared (R^2) is greater than 0.5 then the ability of the independent variable is strong in explaining the dependent variable, but conversely if the value of R^2 is less than 0.5 then the ability of the independent variable is not strong in explaining dependent variable

DISCUSSION

Based on panel data regression analysis that has been done, this aims to determine whether the independent variable influences the dependent variable. This research was conducted by calculation using Eview10, and the results are:

Effect of CR on Stock Returns

Based on the results of panel data regression, it can be seen that CR has no significant effect on stock returns. The results of this study are consistent with the results of research conducted by Öztürk & Karabulut (2018); Lewellen (2004); Srinivasan (2012); Petcharabul & Rompasert (2014); Dita & Murtaqi (2014); Harjito & Aryayoga (2009); Endri et al. (2019). In contrast with the results of research by Gharaibeh (2014); Uluyol & Turk (2013); Kalayci & Karatas (2005); Ulupui (2007); Setiyawan & Pardiman (2017); Sondakh et al. (2015) which proves that CR has a significant effect on stock returns

The Influence of TATO on Stock Returns

Based on the results of panel data regression that has been done, it can be seen that the resulting TAT has a positive value that has no significant effect on stock returns. The results of this study are consistent with the research of Firmansyah (2017); Asmi (2014). While this research is inversely proportional to the research of Patin et al. (2020); Karaca & Savsar (2012); Vedd & Yassinski (2015); Azadi (2013); Saputra et al. (2015); Jose et al. (2011) who say that the total assets are turnover significant effect on stock returns.

Effect of ROA on Stock Returns

Based on the results of panel data regression, it can be seen that the ROA generated has a positive value and has no significant effect on stock returns. These results are in line with research conducted by Firmansyah (2017); Indarti & Dini (2012). While this research is inversely related to research conducted by Allozi & Obeidat (2016); Petcharabul & Rompasert (2014); Dadrasmoghaddam & Akbari (2015); Ulupui (2007); Sondakh et al. (2015); Ilmiyono (2019); Sari & Endri (2019) who say that ROA values are positive and has a significant effect on stock returns.

Effect of DER on Stock Returns

Based on the results of panel data regression that has been done, it can be seen that the DER obtained has a negative value and has no significant effect on stock returns. The results of this study are consistent with research conducted by Allozi & Obeidat (2016); Sivilianto & Endri (2019). This research is inversely proportional to research conducted by Dadrasmoghaddam & Akbari (2015); Dita & Murtaqi (2014); Sondakh et al. (2015); Endri (2018) who say that DER values are positive and influential significant to stock returns.

CONCLUSIONS

In the explanation above it can be concluded that the results of panel data regression analysis and passing several tests, such as the chow, hausman, and lagrange multiplier tests can produce a good effect model used is the CEM (common effect model). With the CR results no significant effect on stock returns, TAT has no significant effect on stock returns, ROA has no significant effect on stock returns, and DER has no effect on stock returns. Advice can be given is for the management of each company in order to improve financial performance in the machinery and heavy equipment sub-sector. Because by looking at the current conditions, it can be seen that the financial performance of this sub-sector has not been considered good. This can be seen from the independent variables that do not produce significant results on stock returns so that the lack of competition in the future. With this research, it is expected that companies in the machinery and heavy equipment sub sector can increase the volume of financial performance with other supporting aspects or variables.

REFERENCES

- Allozi, N.M., & Obeidat, G.S. (2016). The relationship between the stock return and financial indicators (profitability, leverage): An empirical study on manufacturing companies listed in Amman stock exchange. *Journal of Social Sciences*, 5(3), 408-424.
- Amalya, N. (2018). The effect of return on assets, return on equity, net profit margin and debt to equity ratio on stock prices. *Securities Journal*, 1(3), 157-181.
- Asmi, L. (2014). Current ratio, debt to equity ratio, total asset turnover, return on asset, price to book value sebagai faktor penentu return saham. *Management Analysis Journal*, 3(2), 1-12.
- Azadi, M. (2013). The relationship between changes in asset structure and operating earnings in the Tehran Stock Exchange (TSE). *Trends in Advanced Science & Engineering*, 7(1), 30-34.
- Benyamin, I.A., & Endri, E. (2019). Determinants of stock returns of building construction companies listed on the indonesia stock exchange period 2012-2016. *Scholars Journal of Economics, Business and Management*, 6(1), 39-47.
- Dadrasmoghaddam, A., & Akbari, S.M. (2015). Relationship between financial ratios in the stock prices of agriculture-related companies accepted on the stock exchange for Iran. *Research Journal of Fisheries and Hydrobiology*, 10(9), 586-591.
- Dita, A.H., & Murtaqi, I. (2014). The effect of next profit margin, price to book value and debt to equity ratio to stock return in the indonesian consumer goods sector. *Journal of Business and Management*, 3(3), 305 - 315.
- Endri, E., Sumarno, A., & Saragi, H. (2020). Analysis of financial performance: evidence from food and beverage companies in Indonesia. *International Journal of Advanced Science and Technology*, 29(5), 4199-4208.
- Endri, E., Dermawan, D., Abidin, Z., & Riyanto, S. (2019). Effect of financial performance on stock return: evidence from the food and beverages sector. *International Journal of Innovation, Creativity and Change*, 9(10), 335-350.
- Endri. (2018). Internal determinants of share prices for non-bank state-owned companies listed on the Indonesian stock exchange. *ULTIMA Accounting*, 10(2), 124-137.

- Faisal, A., Samben, R., & Pattisahusiwa, S. (2017). Financial performance analysis. *Performance*, 14(1), 6-15.
- Fathony, M., Khaq, A., & Endri, E. (2020). The effect of corporate social responsibility and financial performance on stock returns. *International Journal of Innovation, Creativity and Change*, 13(1), 240-252.
- Firmansyah, M. (2017). The influence of company growth, total asset turnover, return on investment, earning per share on stock prices (Study of Manufacturing Companies on the IDX). *Asian Journal of Innovation and Entrepreneurship*, 2(2), 110-121.
- Gharaibeh, A. (2014). Capital structure, liquidity and stock returns. *European Scientific Journal*, 10(2), 171 - 179.
- Harjito, D.A., & Rangga, A. (2009). Analysis of the effect of performance and stock returns on the Indonesian stock exchange. *Journal of Phenomena*, 7(1), 13-21.
- Ilmiyono, A.F. (2019). The effect of ROE, ROA and EPS toward stock prices in companie sub sektor construction and buildings listed in exchange Indonesia effect (IDX). *International Journal of Latest Engineering and Management Research*, 4(8), 24-35.
- Indarti, I., & Dini, A. (2012). The influence of net profit margin (NPM), return on assets (ROA) and return on equity (roe) on stock prices listed in the LQ45 listed index for 2008-2010. *Journal of Accounting and Business Studies*, 1(1), 1-18.
- Jose, M.L., Lancaster, C., & Stevens, J.L. (2011). Stability of excellence: Revealed patterns in tobin's q-ratios. *Journal of Applied Business Research*, 12(2), 83-91.
- Kalayci, S., & Karatas, A. (2005). Relationship between common stock returns and financial ratios: a research of fundamental analysis in ISE. *Accounting and Finance Magazine*, 27, 146-157.
- Karaca, S.S., & Savsar, A. (2012). The effect of financial ratios on the firm value: Evidence from turkey. *Journal of Applied Economic Sciences*, 7(1), 56-63.
- Latuconsina, Z. (2017). Analysis of the factors that affect the human development index of Malang district based on a regional approach and panel regression. *Journal of Regional and Rural Development Planning*, 1(2), 202-216.
- Lewellen, J. (2004). Predicting returns with financial ratios. *Journal of Financial Economics*, 74, 209-235.
- Lutfi, A.M., & Sunardi, N. (2019). The effect of current ratio (CR), return on equity (ROE), and sales growth on stock prices which has an impact on the company's financial performance (in food and beverage sector manufacturing companies listed on the Indonesian stock exchange). *Journal of Securities (Stocks, Economics, Finance and Investment)*, 2(3), 83-100.
- Mahardika, P.A., & Marbun, D.P. (2016). The effect of current ratio and debt to equity ratio to return on assets. *Widyakala Journal*, 3, 23-28.
- Murhadi, W.R. (2013). The effect of idiosyncratic risk and stock liquidity on stock returns. *Journal of Management and Entrepreneurship*, 15(1), 33-39.
- Nurdin, E. (2018). The effect of financial performance on stock returns in manufacturing companies listed on the Indonesian stock exchange. *Mega Aktiva Journal*, 6(1), 19-27.
- Öztürk, H & Karabulut, T.A. (2018). The relationship between earnings-to-price, current ratio, profit margin and return: an empirical analysis on istanbul stock exchange. *Accounting and Finance Research*, 7(1), 109-115.
- Patin, J.C., Rahman, M., & Mustafa, M. (2020). Impact of total asset turnover ratios on equity returns: Dynamic panel data analyses. *Journal of Accounting, Business and Management*, 27(1), 19-29.
- Petcharabul, P., & Romprasert, S. (2014). Technology industry on financial ratios and stock returns. *Journal of Business and Economics*, 5(5), 739-746.
- Ratnasari, N.P., Kencana, I.P., & Gandhiadi, G.K. (2014). Panel data regression application with a fixed effect model approach. *Mathematics E-Journal*, 3(1), 1-7.
- Saputra, V., Sukarmanto, E., & Heliana. (2015). The effect of total asset turnover (TATO) and return on investment (ROI) on stock returns. *Journal of Accounting Proceedings*, 1(2), 220-226.
- Sari, F.N., & Endri, E. (2019). Determinants of return on assets (ROA) on conventional banks listed on indonesian stock exchange (IDX) period 2013 – 2017. *IOSR Journal of Business and Management*, 21 (4. Ser. II), 52-62.
- Setiyawan, I., & Pardiman. (2017). The effect of current ratio, inventory turnover, time interest earned and return on equity on stock prices in consumer goods manufacturing companies listed in the 2009 - 2012 period. *Nominal, a Barometer of Accounting and Management Research*, 03(2), 117-133.
- Sivilianto, H., & Endri, E. (2019). Determinants of external and internal stock price of coal mining subsector companies period 2005-2017, *Scholars Bulletin*, 5(4), 162-168.
- Sondakh, F., Tommy, P., & Mangantar, M. (2015). Current ratio, debt to equity ratio, return on assets, return on equity have their influence on stock prices on the index lq 45 in the period 2010-2014. *Journal of Economic Research, Management, Business and Accounting*, 3(2), 749-758.

- Srinivasan, P. (2012). Determinants of equity share prices in India: A panel data approach. *The Romanian Economic Journal*, 46, 205-228.
- Sugianto, S., Oemar, F., Hakim, L., & Endri, E. (2020). Determinants of firm value in the banking sector: Random effects model. *International Journal of Innovation, Creativity and Change*, 12(8), 208-218
- Ulupui, I. (2007). Analysis of the effect of liquidity ratios, leverage, activity, and profitability on stock returns (studies on food and beverage companies with the category of consumer goods industry in Bej). *Scientific Journal of Accounting and Business*, 2(1), 1-20.
- Uluyol, O., & Turk, V.E. (2013). The effect of financial ratios on firm value: an application in stock market istanbul (bist). *Afyon Kocatepe University Journal of FEAS*, 4(2), 365-384.
- Utami, M.R., & Darmawan, A. (2018). The effect of der, roa, roe, eps, and mva on stock prices on the Indonesian sharia stock index. *Journal of Applied Managerial Accounting*, 2(2), 206-218.
- Vedd, R., & Yassinski, N. (2015). The effect of financial ratios, firm size & operating cash flows on stock price: evidence from the latin america industrial sector. *Journal of Business and Accounting*, 8(1), 15-26.
- Wardoyo., & Veronica, T.M. (2013). The influence of good corporate governance, corporate social responsibility & financial performance on company value. *Journal of Management Dynamics*, 4(2), 132-149.
- Wijaya, D. (2008). The effect of the stock capital ratio on stock returns of go public telecommunications companies in Indonesia in the 2007 period. *Journal of Management and Entrepreneurship*, 10(2), 136-152.
- Wijaya, R. (2017). Financial performance and company size on stock prices with dividend policy as an intervening variable. *Journal of Finance and Banking*, 21(3), 459-472.