

Jurnal Organisasi dan Manajemen

Journal Homepage: http://jurnal.ut.ac.id/index.php/JOM

The impact of Fundamental Factors on Stock Return of Engineering and Construction Services Companies

Bambang Santoso*, Eka Anantha Sidharta, Amalia Kusuma Wardini Postgraduated Program, Open University, Jakarta *e-mail: bambangsantosoh@gmail.com

Article Info

Keywords:

Financial Performance; Engineering and Construction; Stock Return; Fixed Effect Model

JEL Classification: O15, F31, O24

DOI:

10.33830/jom.v16i2.818.2020

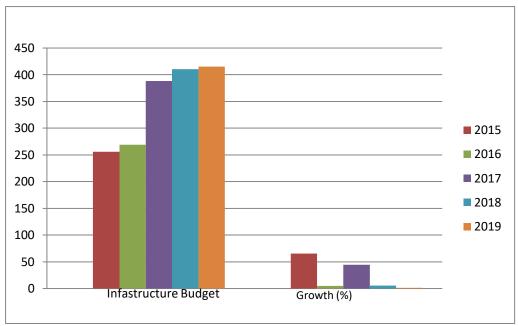
Abstract

This research was conducted to analyze the impact of selected fundamental factors on stock returns of Engineering and Construction Companies listed on the Indonesia Stock Exchange (IDX) using a quantitative approach. The research population includes all Engineering and Construction Companies listed on the IDX but 10 were selected as cross-section samples using a simple random sampling technique with criteria include being listed on the IDX and having time-series financial report data for 2015Q1 -2019Q2 period. Data were retrieved from the companies' audited financial statements and the independent variable which is stock return was determined using Panel Data and analyzed with Multiple Regressions. Meanwhile, the model specification test was produced using the Fixed Effect Model as the fit model. **Findings**. The results showed several fundamental factors of CR, NPM, PBV, EPS, and ROE partially has a significant positive effect on stock returns while DER has a significant negative effect and PER has a slightly positive influence. These findings are expected to contribute positively to the development of theories concerning the financial performance of stock returns. Moreover, the managerial implication of this research is that investors can use fundamentals analysis with a focus on CR, DER, EPS, NPM, PBV, PER, and ROE as the basis for decision making due to their influence on Stock Return.

1. Introduction

Stocks are one of the most widely used investment alternatives in the capital market by investors due to their ability to yield more profits and require lesser funds when compared with bonds. Company shares are, therefore, usually valuated through fundamental analysis to determine a fair price and this is also observed in Engineering and Construction Services companies.

The Presidential Regulation Number 75 of 2014 concerning Acceleration of National Infrastructure Development (www.kppip.go.id) requires government and private investors to prioritize some projects considered to have met certain requirements and possess a priority scale while those not on a priority scale are excluded. This has led to an annual increase in State Budget (APBN) for infrastructural development as observed in the data retrieved for the last 5 (five) years (2015 - 2019) and presented in the following figure.

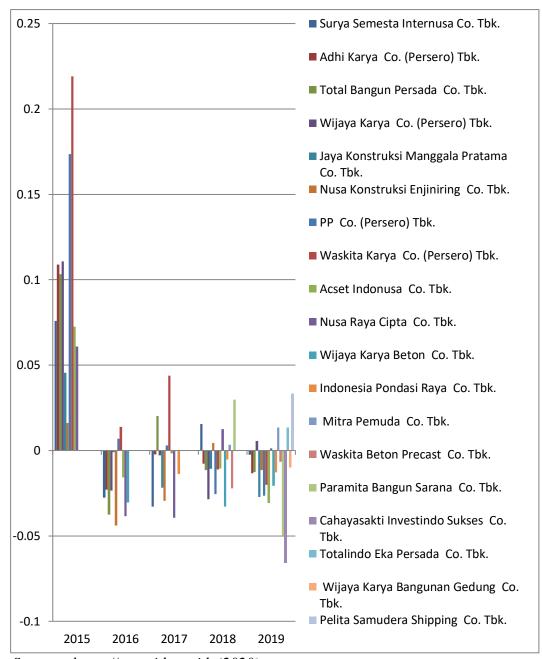


Sources: https://www.kemenkeu.go.id (2020).

Figure 1. The Graphical representation of Infrastructure Budget for 2015-2019

The financial performance and stock return price of several Engineering and Construction Service companies listed on the Indonesia Stock Exchange (IDX) working on infrastructure projects have, however, been discovered to be showing variations in their growth (Source: www.idx.co.id). Some of them have increased rapidly in the past 5 years in terms of both financial performance and annual stock price returns while some others have decreased. Therefore, investors need to analyze the companies' performance before making investment decisions to avoid losses.

Financial ratio analysis is the conventional measurement tool usually used by investors but has been discovered to be limited by the omission of cost of capital in its calculations and this makes it difficult to determine the success of a company in achieving the expected value. This is important considering the preference of investors to invest some of their funds in companies with large profits. However, reports showed there were 19 Engineering and Construction Services companies between 1997 to 2017 with different dates of Initial Public Offering (IPO) records and the return of shares owned by these companies in the last 5 years and above has been very volatile as shown in the stock returns calculated as the monthly average for one year in the following figure.



Sources: https://www.idx.co.id, (2020)

Figure 2. Stock Returns of Engineering and Construction Services Companies Listed on the IDX Average Per Month (2015 – 2019)

The information provided in the figure shows the stock returns are very volatile in the last 5 years, 2015 - 2019 (Source: https://www.idx.co.id/, 2019). Moreover, financial ratios have been reported to be very important in predicting stock returns while valuation analysis has been used by many researchers but their findings indicate the presence of several pros and cons.

The research by Nugroho (2012) on the Construction Service Industry partially showed CR, DER, and TATO have no effect while ROA has a significant effect on stock returns. Meanwhile, CR, DER, TATO, and ROA simultaneously have a substantial influence on stock returns. Moreover, Sabrang (2015) showed the effect of company performance measured by the ratio of stock returns in construction and engineering companies, and this was recorded from the partial positive and significant influence of PBV and EPS. Another study by Utami (2015) on issuers in

the construction subsector concluded that PER, ROE, EPS, and DER have a significant effect on stock returns.

The research conducted by Tulastri (2017) on Construction and Construction Material listed on the IDX using NPM, ROA, and ROE variables, however, provided different results by showing NPM and ROE partially have a positive and insignificant effect while ROA has a significant positive and negative influence on stock returns. These studies simultaneously showed the positive but insignificant influence of NPM, ROA, and ROE while Kariza (2017) found the positive and significant effect of PBV, EPS, and NPM on stock returns of the Construction Property, Real Estate and Construction Companies on the IDX.

Nugroho (2012), Sabrang (2015), and Utami (2015) used the same independent variable for profitability ratio as observed in the CER, DER, TATO, and ROA used in Nugroho (2012), PBS and EPS in Sabrang (2015), PER, ROE, and DER in (2015) while the stock return was used as the dependent variable. These three studies, however, produced different results and this creates a research gap to be filled by this study.

2. Research Method

This research is associative in nature and the quantitative data used were obtained from the companies' audited financial statements during the 2015-2019 period. This means secondary data used in calculating financial performance and stock returns because they have been officially published by several parties and in the IDX, which consists of 180 cross-section data. The data are, therefore, quantitative because they are in the form of numbers (Sangadji, et al., 2010) and also considered pooling data due to their combination of both time series and cross-section data. These are necessary due to the objective of this research which is focused on determining and analyzing the partial influence of CR, DER, EPS, NPM, PBV, PER, and ROE on stock returns of Engineering and Construction Services companies listed on the IDX.

a. Current Ratio (X1)

Current Ratio (CR) measures a company's ability to meet its short-term obligations. It is usually used to analyze the working capital position of a company and also shows the level of security of short-term creditors or the company's ability to pay off liabilities. The Current Ratio formula is presented as follows.

Current Ratio (CR) =
$$\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

b. Debt to Equity Ratio (X2)

Debt to Equity Ratio (DER) is the wealth of debt funding relative to equity funding and is usually calculated by dividing the total debt obligations with Equity as shown in the following relationship.

$$Debt \ to \ Equity \ Ratio (DER) = \frac{Total \ Company \ Debts}{Total \ Company \ Equity}$$

Where:

Loans or liabilities are obligations to be paid in cash to other parties within a certain period and classified as current, long-term, and other obligations based on the repayment period.

Equity is the owner's right to the net assets which is the total assets minus liabilities of a company and also consists of the owner's deposits and retained earnings.

c. Earnings Per Share (X3)

Earnings Per Share (EPS) is the amount of income received by shareholders from each common share circulated within a certain period. This ratio shows the amount of profit obtained by investors per share and usually calculated using the following formula:

Earning Per Share (EPS) =
$$\frac{\text{Net Income}}{\text{Number of Shares}}$$

EPS value is a reflection of the company's success in obtaining profits and is considered very important for investors in assessing the ability of a company to make profits from time to time.

d. Net Profit Margin (X4)

Net Profit Margin is the profitability ratio used in measuring the percentage of a company's net income to net sales. It shows the proportion of sales remaining after deducting all related costs and calculated using the following formula.

Net Profit Margin (NPM) =
$$\frac{\text{Net Profit after Tax}}{\text{Net Sales Revenue}}$$

Net Profit Margin shows the company's ability to generate net profits from sales. A greater value shows a company is more profitable and vice versa.

e. Price to Book Value (X5)

Price to Book Value is a reflection of how expensive or cheap the current stock price is compared to the book value and determined using the following relationship.

Price to Book Value
$$(PBV) = \frac{Current Stock Price}{Book Value Per Share}$$

Price to Book Value is the ratio of market price per share to book value per share and this means it compares the stock market price with the book value. Therefore, a high value means the stock market price is higher than the book value.

f. Price Earnings Ratio (X6)

Price Earnings Ratio is a comparison between the market price per share and earnings per share (Fahmi, 2012) and usually calculated using the following formula.

Price Earning Ratio (PER) =
$$\frac{\text{Current Stock Price}}{\text{Profit Per Share}}$$

PER is the ratio of market price per share to the profit per share which determines the expensiveness of stock market price and the investors' confidence in a stock. A higher value indicates a more expensive price of shares and high investor confidence in shares.

g. Return On Equity Ratio (X7)

Return on Equity is one of the profitability ratios quite often used to analyze a company's financial performance and it is usually determined using the following formula.

Return On Equity (ROE) =
$$\frac{\text{Net Profit}}{\text{Total Company Equity}}$$

It shows the company's ability to generate a net profit on its capital. A high value means the company is more profitable and vice versa.

The dependent variable is a variable which depends on other variables and this means its existence is influenced by independent variables. Therefore, the dependent variable used in this study is Stock Return (Y) which is defined as the level of profit on an investment (Farkhan and Ika, 2012). The value of stock returns used in this study is the difference in profit (loss) between current and past investment prices. This variable was calculated using the equation of the panel data regression model as shown in the following relationship:

The research population, as previously stated, includes all the shares of Engineering and Construction Services listed on the Indonesia Stock Exchange during the 2015-2019 period and obtained from the official website https://idx.co.id/. A regression model estimation technique was used to analyze the panel data through the possible three approaches which are:

a. Common Effects Model (CEM)

This is the simplest panel data model approach which is calculated using the following equation.

$$Y_{ii} = \infty + \beta X_{ii} + \varepsilon_{ii}$$

Where:

 Y_{it} = Response Variable on observation unit to-i and time to-t

 X_{it} = Predictor Variable on observation unit to-i and time to-t

 β = Slope or direction coefficient

 α = Intercept regression models

 ε_{it} = Error component on observation unit to-i and time to-t

b. Fixed Effects Model (FEM)

Each individual in this model is an unknown parameter and usually estimated using the dummy variable technique formulated as follows:

$$Y_{it} = \alpha_i + \beta_j X_{it}^j + \sum_{i=2}^n \alpha_i D_i + \varepsilon_i$$

Where:

 $\mathbf{Y_{it}}$ = Individual related variables to-i and time to-i

 X_{it}^{j} = Free Variable to-j, individual to-I, and time to-t

 $\mathbf{D_t}$ = Dummy variable

 ε_{it} = Error Component on individual to-i at time to-t

 α = Intercept regression model

 β_i = Parameter for variable to-j

The panel data regression estimation technique in the FEM model involves adding dummy variables or Least Square Dummy Variable (LSDV).

c. Random Effect Model (REM)

The difference between individual characteristics and time in this technique is accommodated by the error of the model. The random effect equations are, therefore, formulated as follow:

$$Y_{it} = \alpha_i + \beta_j X_{it}^j + \varepsilon_{it} ; \varepsilon_{it} = u_i + V_i + W_{it}$$

Where:

 Y_{it} = Individual related variables to-i and time to-i

 X_{ii}^{j} = Free Vriable to-j individual to-i and time to-t

 $\varepsilon_{it} = Error$ Component on individual to-i at time to-t

 β_j = Parameter for variable to-j

 u_i = Error component on cross section

 V_{it} = Time series component

 W_{it} = combined error component

The value of stock returns used is the difference in profit (loss) obtained between the current and past investment prices. The values were calculated using the equation of the panel data regression model with the following formula:

$$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it}$$
; $t = 1, 2, ..., N; t = 1, 2, ..., T$

Where:

N = number of variables

T = amount of time

 $N \times T = number of panel data$

The Chow, Hausman, and Lagrange Multiplier Tests were used to determine the most suitable technique for this research. The Chow-Test was used to evaluate the best among the common effect and fixed effect models to be used for panel data regression while Hausman-Test compared Fixed Effect and Random Effect Models. Meanwhile, the Lagrange Multiplier Test focused on the best method between Common Effect and Random Effect Models through the use of the Breush-Pagan test to determine the existence of time and individual effect.

d. Multiple Linear Regression Analysis

This analysis determines the influence between two or more independent and one dependent variable and also used in building equations to forecast. As previously stated, Stock Return (Y) was used as the dependent variable in this research and was calculated using the equation of panel data regression model as shown in the following formula:

$$Y_{it} = \beta_0 + \beta_1 CR_1 + \beta_2 DER_2 + \beta_3 EPS_3 + \beta_4 NPM_4 + \beta_5 BPV_5 + \beta_6 PER_6 + \beta_7 ROE_7 + \varepsilon$$

Where:

 β_0 = Regression Model Constants

 $\beta_0 - \beta_7 = Regression Coefficient$

R = Stock Return CR = Current Ratio

DER = Debt to Equity Ratio EPS = Earnings Per Share NPM = Net Profit Margin PBV = Price to Book Value PER = Price Earnings Ratio ROE = Return on Equity

Results and Discussions

The analysis was focused on calculating the financial ratios for each company using the data obtained from the Indonesia Stock Exchange (BEI) or the company's financial statements from 2015 to the second quarter of 2019.

The availability and completeness of the financial ratios for the Engineering and Construction Services company for the last 5 years (2015 - 2019) were made the same for each issuer to ensure a balanced data panel. A panel data regression analysis was conducted using the Eviews 10 statistical application programs after all the data have been collected and processed to obtain the quantities of financial ratios and stock returns as presented in the previous tables. Two types of variables were used in this study and these include the dependent variable which was Stock Return and independent variables which were CR, DER, EPS, NPM, PBV, PER, ROE, and Stock Return. These variables are, therefore, described in Table 1.

Characteristics Minimum Maximum **Std. Deviation** Mean n

Table 1. Descriptive Statistics Research Data

CR_X1	180	0.00	3.88	1.5272	0.43206
DER_X2	180	0.36	9.54	1.9103	1.44924
EPS_X3	180	-7.408	1.9511	7.07049	1.9132510
NPM_X4	180	-0.26	0.23	0.0462	0.05266
PBV_X5	180	0.00	12.25	0.5985	1.62261
PER_X6	180	0.65	21.94	3.3971	4.32724
ROE_X7	180	-0.51	0.78	0.0710	0.13553
Stock Return_Y	180	-0.04	0.04	-0.0129	0.01786
Valid N (listwise)	180				

Sources: The data were processed by the author (2020)

The descriptive statistical data in Table 1 shows the total amount of data obtained from 10 companies for five years is 180 and the average CR value is 1.5272 with the lowest at 0.00 and the highest at 3.88 as well as an average deviation of 0.43206. Moreover, the average, lowest, highest and standard deviation values for DER was 1.9103, 0.36, 9.54, and 1.44924, EPS had 7.07049, -7,408, 1.9511, and 1.9132510, NPM had 0.0462, -0.26, 0.23, and 0.05266, PBV had 0.5985, 0.00, 12.25, and 1.62261, PER had 3.3971, 0.65, 21.94, and 4,32724, ROE had 0.0710, -0.51, 0.78, and 0.13553 while the stock return had -0,129, -0.04, 0.04 and 0.01786 respectively. Moreover, the results of the panel data regression model selection test are presented using the following subheadings.

Model Selection Test

The most suitable model to process the data needed to be determined before the panel data regression analysis and the results of the tests applied are presented as follows:

1) Chow Test

This was conducted to determine the best panel data regression estimation model between the Common Effect and Fixed Effect Models. A probability value of F > 0.05 means H0 is accepted and the Common Effect Model would be used to estimate the panel while F < 0.05 means H1 is accepted and the Fixed Effect Model would be applied. The result of the Chow test is, therefore, presented in the following table.

Table 2. Result of the Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	8.816054	(8,164)	0.0000
Cross-section Chi-square	64.387871	8	0.0000

Sources: The data were processed by the author (2020)

The results on the table show the effect of Current Ratio, Debt to Equity Ratio, Earnings per share, Net Profit Margin, Price Book Value, Price to Earnings Ratio, and Return on Equity on stock returns has a cross-sectional F-value of 0.0000 and this means H0 is rejected and H1 accepted. Therefore, the Fixed Effect Model was selected since F < 0.05.

2) Hausman Test

The Hausman test was used to compare the Fixed Effect and Random Effect Models to select the most appropriate method. A Chi-square probability value > 0.05 means H0 is accepted and the Random Effect Model would be used while value <0.05 means Fixed Effect Model is most appropriate. The results obtained are, therefore, presented in the following table.

Table 3. Hausman Test Result

Test Summary	Chi-Sq. Statistic`	d.f.	Prob.
Cross-section random	3.476712	7	0.0083

Sources: The data were processed by the author (2020)

The table shows the Chi-square probability has a value of 0.0083 and since this is <0.05, H_0 is rejected and H_1 accepted, the most appropriate model is the Fixed Effect Model. Meanwhile, Chow and Hausman's tests require that a probability value greater than 0.05 is followed by the Lagrange Multiplier without normality test but since the values obtained were lesser than 0.05 there was no need for the Lagrange Multiplier test. Therefore, a Classical Assumption Test was conducted to determine the existence of deviation from the classical assumption of heteroscedasticity such as the existence of variants in residual variance in a regression model which was expected to have a homogeneous variety while the Breusch Pagan Godfrey Test was used to show the irregularities. The criteria used are such that if all probability values (Obs * R2) are greater than the significance level of 0.05 it means the residual observations are not correlated. The heteroscedasticity test results are, therefore, presented in the following table:

Table 4. Heteroscedasticity Test Result

F-statistic	1112.796	Prob. F(1,31)	0.3512
Obs* R-squared	0.43851	Prob. Chi-square (1)	0.1238
Scale explained SS	-54.63401	Prob. Chi-square (1)	0.6224

Sources: The data is processed by the author (2020)

Table 5 shows the Obs * R-squared is 0.43851 while the probability value is 0.1238 and this means the regression model used met the assumptions of the heteroscedasticity test as observed in the Obs * R-squared probability value which is greater than the significance level of 0.05. Therefore, the model is homogeneous and free from heteroscedasticity problems.

b. T-Test for the Hypothesis

T-test or partial test is usually used in determining the existence of a clear or partial influence of each of the independent variables on the dependent variable at a significant degree of 0.05. This means a value smaller than the degree of confidence means the hypothesis which states that a partially independent variable affects the dependent variable is accepted.

The test criteria are, therefore, as follow:

H₀: rejected if t count> t-table (1.653)

H_a: accepted if t count < t-table (1.653)

The results, according to the Eviews 10 test, are presented in the following table:

Table 5. T-Test Result

No	Variable	t-Statistic	Prob.	Information
1	(Constant)	2.417394	0.0167	
2	X1_CR	1.928399	0.0055	Positively Significant
3	X2_DER	-3.705217	0.0041	Negatively Significant
4	X3_EPS	-1.182079	0.2388	Negatively Insignificant
5	X4_NPM	2.189568	0.0089	Positively Significant
6	X5_PBV	1.920589	0.0389	Positively Significant
7	X6_PER	1.506532	0.0131	Positively Insignificant
8	X7_ROE	1.840303	0.0096	Positively Significant
Depende	ent Variable: Y .	Stock Returns		

Dependent Variable: Y_Stock Returns

Sources: The data were processed by the author (2020)

The t-test statistics showed the partial influence of CR, DER, EPS, NPM, PBV, PER, and ROE on stock returns (Y), and the information obtained are explained as follows.

The X1_CR variable has a significance value of 0.0055 on the Coefficients table with α or degree of significance value of 0.05 which means 0.0055 < 0.05 while the t-test was 1.928399 > 1.653 of t-table and this shows CR has a significant positive effect on stock returns. This ratio shows the company's ability to pay its short-term liabilities from its current assets and higher value indicates the company is more liquid and vice versa (Anwar, 2015). It is mostly used to analyze a company's working capital position, measure its ability to meet financial obligations, and has been discovered to be one of the fundamental factors affecting stock returns.

The X2_DER variable has a significance value of 0.0041 on the Coefficients table with α or degree of significance value of 0.05 which means 0.0041<0.05 while the t-test was -3.705217 <

1.653 of t-table and this means DER has a significant negative effect on stock returns. This variable provides a relative scale between equity and debt used in financing several activities for companies (Allozi et al., 2016) and has also been found to be important to the fundamental analysis of stocks.

The X3_EPS variable has a significance value of 0.2388 on the Coefficients table with an α or degree of significance value of 0.05 which means 0.2388 > 0.05 while the t-test was -1.182079 < 1.653 of t-table and this means EPS has a negative and insignificant effect on stock returns. This variable is the financial ratio often used by existing and potential stock investors to analyze a company's ability to generate profits based on its shares. According to Tandelilin (2010), "Earning Per Share (EPS) shows the amount of the company's net profit ready to be distributed to all company shareholders." This means EPS or income per share involves returning profits to shareholders based on the number of shares owned by each of them. The value is usually determined from the financial statements of a company and this means the first step is understanding the contents of the report, both the balance sheet and income statement.

The X4_NPM variable has a significance value of 0.0089 on the Coefficients table with an α or degree of significance value of 0.05 which means 0.0089 < 0.05 while the t-test was 2.189568 > 1.653 of t-table and this indicates NPM has a significant positive effect on Stock Returns. This variable is very useful in assessing the level of profitability of a company compared to other similar companies. It also compares the company's net profit with its income (Allozi et al., 2016) and also serves as the profitability ratio to measure the percentage of a company's net profit to its net sales. This net profit margin shows the proportion of sales remaining after deducting all expenses and has also been discovered to be one of the fundamental factors affecting stock returns.

The X5_PBV variable has a significance value of 0.0389 on the Coefficients table with an α or degree of significance value of 0.05 which means 0.0389 < 0.05 while the t-test was 1.920589 > 1.653 in the t-table and this means PBV has a significant positive effect on stock returns. This variable is a market ratio usually used to measure the performance of the stock market price against its book value by calculating the shareholder equity and the number of outstanding shares. The ratio has also been reported to be the comparison of the stock price in the market with the book value of the shares as described in the balance sheet (Harahap, 2015). It helps to determine the performance of the share or market price against the book value.

The X6_PER variable has a significance value of 0.131 on the Coefficients table with an α or degree of significance value of 0.05 which means 0.131 <0.05 while the t-test was 1.506532 > 1.653 on the t-table and this means PER has no significant positive effect on stock returns. This variable is the ratio of the current stock price to its Earning Per Share (EPS) (Kheradyar et al., 2011). Moreover, the magnitude of the PER compared to similar companies or industry average reflects the performance of a company's share price in the industry. This variable is also one of the most basic measures in fundamental stock analysis.

The X7_ROE variable has a significance value of 0.0096 on the Coefficients table with an α or degree of significance value of 0.05 which means 0.0096 <0.05 while the t-test was 1.840303 > 1.653 in the t-table and this means ROE has a significant positive effect on stock returns. This variable is the ratio of the company's net profit to its total equity (Sadeghzade et al., 2016) and used in measuring the effectiveness of capital financial management to generate profits. Return on Equity is also one of the fundamental factors affecting stock returns.

4. Conclusion

The results showed CR, NPM, PBV, and ROE have a significant positive effect on the fluctuations in the stock returns for Engineering and Construction Services companies listed on the IDX in the 2015Q1 - 2019Q2 period. This means an increase in the CR variable led to a consistent increment in the stock returns. Moreover, DER had a significant negative effect, EPS had no significant negative effect, and PER had no significant positive effect on fluctuations in the

stock returns and this means an increase in the PER led to an inconsistent reduction in the stock returns.

The R-Square value of 0.370061 or 37.0% obtained showed the independent variables including CR, DER, EPS, NPM, PBV, PER, and ROE contributed 37% to the dependent variable which is the stock return and this was observed to be due to the variations in the independent variables which later leads to the difference in stock returns. The remaining 63% was found to be influenced by several other factors beyond this research including (1) corporate action such as several cases against the companies which caused negative sentiments, (2) corporate financial performance obtained from the company's financial statements published quarterly, and annually, and (3) macroeconomic factors such as the economic conditions of a country affecting the market sentiment on the IDX and this is observed from government policies formulated on the investment climate. Global economic factors such as the rise and fall of global prices of commodity including oil and coal also affect stock returns.

Further studies are suggested with the study period extended as well as independent variables and a wider sample added to ensure more representation and generalization of the results. It is also recommended that investors consider CR, DER, EPS, NPM, PBV, PER, and ROE as the basis for investment decision making due to their influence on Stock Return.

References

- Adhyaksa, (2020, January 11). Perusahaan Konstruksi Pemerintah Dan Berbagai Layanannya. Retrieved from https://www.adhyaksapersada.co.id/perusahaan-konstruksi-milik-pemerintah
- Allozi, N. M. & Ghassan S. O. (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 (COES&RJ-JSS)*, 1(7), 1-17.
- Anwar, M. (2015). *Manajemen Keuangan Bisnis*. Jakarta: Penerbitan Universitas Terbuka. Cet. 2, Ed. 1.
- Bursa Efek Indonesia. (2019). Profil Perusahaan Tercatat. Retrieved from https://www.idx.co.id/
- Diparesa, E. S. (2018). Pengaruh Return On Asset, Return On Equity, dan Debt to Equity Ratio Terhadap Return Saham Perusahaan Bumn Bidang Konstruksi Yang Terdaftar Di Bursa Efek Indonesia Triwulan I-III Periode 2012-2016. Skripsi. Fakultas Ekonomi, Universitas 17 Agustus 1945 Surabaya.
- Farkhan & Ika. (2012). Pengaruh rasio keuangan terhadap return saham perusahaan manufaktur di bursa efek Indonesia. *Jurnal Bisnis dan Manajemen*, 9(1), 1-13.
- Hery. (2015). *Analisis Laporan Keuangan Pendekatan Rasio Keuangan*. Yogyakarta: CAPS (Center for Academic Publishing Service).
- Kariza, C. I. (2017). Pengaruh suku bunga, earning per share (EPS), net profit margin (NPM), price to book value (PBV) terhadap return saham (studi empiris pada perusahaan sektor properti, real estate, dan konstrusi bangunan di bursa efek Indonesia). *Equator Journal of Management and Enterpreneurship*, 5(4). 1-16.
- Kheradyar, S., Ibrahim, I., & Mat N. F. (2011). Stock return predictability with financial ratios. *International Journal of Trade, Economics and Finance*, 2(5), 391-396.
- Rahmawati, A. (2017). Kinerja keuangan dan tingkat pengembalian saham: studi pada perusahaan asuransi di bursa efek Indonesia. *Jurnal Bisnis dan Manajemen*, 7(1), 1-15.
- Sabrang, Gilang G. (2015). Analisis Pengaruh Faktor-Faktor Fundamental Perusahaan Terhadap Return Saham Pada Perusahaan Sektor Konstruksi dan Properti di Bursa Efek Indonesia. Tesis. Jurusan Akuntansi, Universitas Gadjah Mada.

- Sadeghzade, J., Seyednezhad, F, & Kheradyar, S. (2016). Estimate the profitability of accepted companies in Tehran stock exchange: because of the relative position (ROE) of the companies. *International Journal of Applied Operational Research-An Open Access Journal*, 2(5), 1-21.
- Sangadji, E. M. & Sopiah. (2010). *Metodologi Penelitian-Pendekatan Praktis dalam Penelitian*. Yogyakarta: ANDI.
- Sari, M. R. (2019, January 24). BUMN Karya Didorong Rebut Porsi Kontraktor Asing di Sektor. Retrieved from http://bumn.go.id/wika/berita/4500
- Seng, D. (2012). Fundamental analysis and the prediction of earnings. *International Journal of Business and Management*, 7(3), 1-32.
- Tandelilin, E. (2012). Manajemen Investasi. Edisi Ke-1. Cet. 6. Penerbit: Universitas Terbuka.
- Tulastri. (2017). Analisis Pengaruh Rasio Profitabilitas Perusahaan Terhadap Return Saham (Studi Kasus Pada Perusahaan Bidang Kontruksi dan Bangunan yang Terdaftar Pada Bursa Efek Indonesia Periode 2012-2015). Tugas Akhir Program Magister (TAPM). Manajemen Keuangan, Universitas Terbuka Jakarta.
- Utami, W. R. (2015). *Pengaruh Faktor Internal dan Eksternal Terhadap Return Saham Subsektor Konstruksi*. Tesis. Manajemen Keuangan, Institut Pertanian Bogor.
- Wira, D. (2014). Analisis Fundamental Saham. Jakarta: Exceed.