EQUILIBRIUM - Jurnal Bisnis & Akuntansi
Volume XVI, No. 1 (April 2022): 9-17
ISSN: 1978-1180

THE IMPACT OF CURRENT RATIO, DEBT TO EQUITY RATIO, AND TOTAL ASSET TURNOVER ON RETURN ON EQUITY IN CONSTRUCTION COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FROM 2012 TO 2017

Fian Martino Widiantoro[1], *Agus Prasetyanta[2], Ade Kristianus Kaloeti[3]

[1,2] Faculty of Economic & Business, Universitas Kristen Immanuel Yogyakarta

*Corresponding Email: agusprasetyanta@ukrimuniversity.ac.id

Abstrak

This research aims to determine the effect of the current ratio, debt to equity ratio, and total asset turnover on return on equity either partially or simultaneously on construction companies listed on the Indonesia Stock Exchange in 2012-2017. The population of 15 companies and the sample taken as many as 6 companies, sampling using the purposive sampling method. Data analysis techniques used descriptive statistical tests, classic assumption tests, regression analysis, and determinant coefficients. The test results show that partially the current ratio has no effect, while the debt to equity ratio and total asset turnover have a significant effect on return on equity. Simultaneously the three independent variables have a significant effect on return on equity. The research shows the coefficient of determination is able to explain the effect of the system on return on equity of 58.1% and the remaining 42.9% is influenced by variables not included in this research.

Keywords: Current Ratio, Debt to Equity Ratio, Total Asset Turnover, Return on Equity, Construction Companies

INTRODUCTION

The construction sector plays a crucial role in the economic development of a nation. Without physical infrastructure, it becomes challenging to achieve improvements in quality of life and equitable economic distribution across various regions. Currently, the government is actively engaged in developing infrastructure across multiple domains, including highways, airports, dams, bridges, housing, and urban transit systems such as MRT and LRT, to expedite economic flow and promote social equity.

Companies are established to enhance their value, and one of the strategies employed is securing capital for business expansion. Financial statements serve as a means for companies to account for their activities, and favorable financial ratios can attract investors to commit their capital to the firm.

Financial reports present various financial ratios, including profitability, liquidity, solvency, and activity ratios. Profitability ratios can be reflected in the return on equity (ROE), which measures the rate of return on invested capital. ROE is a ratio that compares sales to the equity held by the company. An increase in a company's ROE can significantly influence investors' decisions regarding whether to maintain or increase their investments (Henda Hendawati, 2017). ROE results from a series of policy decisions and actions taken by the company. A high ROE enhances the company's competitiveness and potential for expansion, thereby attracting investors to invest their capital. The ROE ratio provides a measure of management effectiveness, indicated by the profits generated from sales or investment income. To assess profitability, both short-term and long-term financial analyses are necessary to yield high returns for the company.

The current ratio is a financial metric utilized to assess the relationship between current assets and current liabilities. It indicates the extent to which current assets can cover short-term obligations. A higher ratio signifies a greater capacity for a company to meet its short-term debts. Conversely, a low current ratio is often interpreted as a potential liquidity issue, while an excessively high ratio may indicate an inefficient use of resources, as it suggests a surplus of idle funds that could detract from the company's overall financial performance (Hartono, 2015). This ratio effectively reveals how well a company's current assets can be employed to satisfy its short-term liabilities.

The relationship between total debt and the equity capital of a company can be evaluated using the debt to equity ratio (DER), which serves as a solvency measure. The funding policy reflected in the DER significantly influences the profitability achieved by the company. This ratio provides insight into how much of the company's own capital is being utilized for operational purposes (Lintang Relskabani Pradnya, 2016).

The efficiency of asset utilization within a company is measured by the total asset turnover (TATO). TATO is an activity ratio that gauges the effectiveness of a company in leveraging its assets to generate sales and, consequently, profits. A higher TATO value indicates that assets are being converted into sales more rapidly, thereby enhancing profitability (Rizki Adriani Porangga, 2015).

The Impact of the Current Ratio, Debt to Equity Ratio, and Total Asset Turnover on Return on Equity.

According to Sofyan (2007) as cited in Elfanika (2012), a company that is capable of making payments does not necessarily possess the ability to meet all its financial obligations. This situation may arise from an unfavorable distribution of current assets, such as a relatively high level of inventory compared to sales forecasts. Consequently, a low inventory turnover rate indicates excessive investment in inventory or a significant amount of receivables that may be difficult to collect. If a company's current assets are less than its current liabilities, it will face operational challenges. High liquidity suggests an excess of current assets, which can negatively impact profitability. A low current ratio indicates poor short-term liquidity, while a high current ratio reflects an abundance of current assets but can also adversely affect the company's profitability. It can be concluded that a higher current ratio correlates with a lower ability to generate profits. As the current ratio increases, the return on equity (ROE) tends to

decrease, illustrating an inverse relationship between profitability and liquidity (Van Horne and Wachowicz, 1997) as noted in Elfanika (2012). However, a lower current ratio can also have detrimental effects on profitability.

The level of the debt to equity ratio significantly influences the return on equity achieved by a company. When the costs associated with borrowing are lower than the costs of equity capital, debt financing becomes a more effective means of enhancing return on equity; conversely, the opposite holds true (Brigham, 1983) as noted in the research by Aminatuzzahra (2010). An increase in debt will impact the company's profits, reflecting its ability to meet all financial obligations.

Total asset turnover (TATO) is defined as the ratio of sales generated to the total assets held over a specific period. An analysis of TATO trends over several periods that indicates a consistent upward trajectory suggests improved efficiency in asset utilization, leading to increased revenue (Sawir, 2001) as highlighted in Aminatuzzahra's (2010) study. TATO is influenced by both the volume of sales and the total assets, which include both current and fixed assets. Therefore, greater efficiency in TATO can defer asset purchases, thereby enhancing the company's revenue.

Theoretical Framework

In this research, the variables employed include return on equity as the dependent variable, while the independent variables consist of the current ratio, debt to equity ratio, and total asset turnover. The conceptual framework is illustrated as follows.

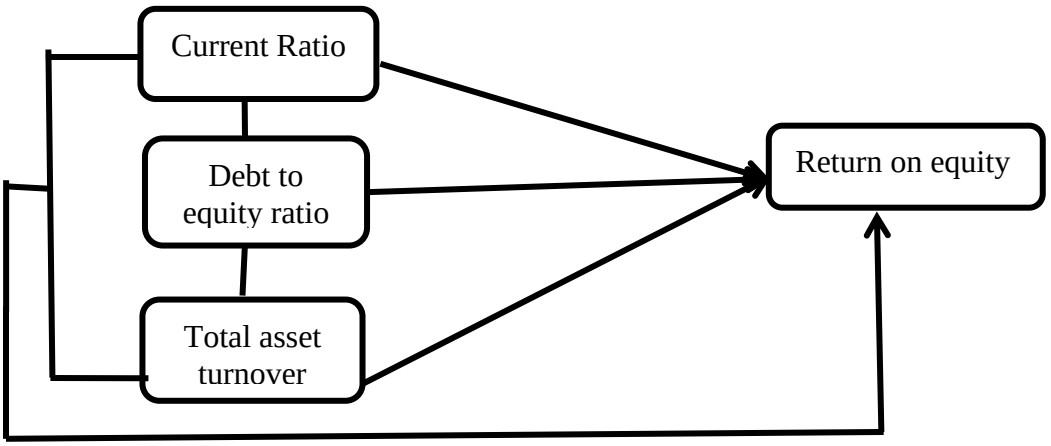

Figure 1. Theoretical Framework

Hypotheses

Based on the formulation of the problem and the existing theoretical framework, the following preliminary conclusions can be drawn:

H1: It is suspected that the current ratio, debt to equity ratio, and total asset turnover have a significant partial effect on return on equity in construction companies listed on the Indonesia Stock Exchange from 2012 to 2017.

H2: It is suspected that the current ratio, debt to equity ratio, and total asset turnover have a significant simultaneous effect on return on equity in construction companies listed on the Indonesia Stock Exchange from 2012 to 2017.

METHODOLOGY

This study employs secondary data, specifically financial reports from construction companies listed on the Indonesia Stock Exchange for the period from 2012 to 2017. Data collection was conducted via the IDX website at www.idx.co.id, where the published reports from the issuers were downloaded. The researcher adopted a quantitative approach to examine the influence of independent variables on the dependent variable. The variables under

investigation include liquidity, represented by the current ratio; solvency, indicated by the debt to equity ratio; activity, measured by total asset turnover; and profitability, represented by return on equity.

Current Ratio (CR)

The current ratio is a financial metric that illustrates a company's ability to meet its short-term obligations that are due. It is defined as the ratio of current assets to current liabilities held by the company. This ratio assesses the extent of current assets available to cover short-term debts, as noted by Suad Husnan (1994) in the research conducted by Elfanika (2012). Furthermore, Machfoedz (1999), as referenced in the study by Aminatuzzahra (2010), indicates that the current ratio reflects a company's capacity to fulfill obligations that require immediate attention, essentially measuring its short-term financial health. The formula for calculating the current ratio is as follows:

Debt to Equity Ratio (DER)

The debt to equity ratio (DER) reflects a company's ability to meet its total debt obligations in relation to its total equity. This ratio serves as an indicator of solvency, illustrating the percentage of a company's capacity to repay both short-term and long-term debts based on its own capital.

Total Asset Turnover (TATO)

Total asset turnover (TATO) is a key activity ratio that assesses a company's efficiency in utilizing its assets to manage its operations. According to Syamsuddin (2009:19), as cited in the research by Pradnya (2016), TATO reflects the efficiency level of a company's overall asset utilization in generating a specific volume of sales.

The data collection method employed in this study is secondary data collection, which involves gathering information from the financial statements of construction companies listed on the Indonesia Stock Exchange (IDX). This data is accessible through the website www.idx.co.id, where financial reports from each company are available. The data processing for this research is conducted using SPSS 22 (Statistical Product and Service Solutions).

The data analysis techniques applied in this study include descriptive statistical tests that provide insights into the mean, maximum, minimum, and standard deviation values. Additionally, classical assumption tests are performed, which encompass normality tests, multicollinearity tests, and heteroscedasticity tests. Regression analysis is also conducted, including simple linear regression with t-tests and multiple linear regression with F-tests, along with the determination coefficient.

The data utilized in this research is sourced from the official website www.idx.co.id. The sample selection is carried out using purposive sampling, which involves selecting samples based on predetermined criteria. The companies included in the study sample are as follows:

Table 1
Research Sample of Construction Companies

NO	CODE	COMPANIES
1	ADHI	PT. Adhi Karya (Persero), Tbk.
2	DGIK	PT. Nusa Konstruksi Enjiniring, Tbk.
3	PTPP	PT. Pembangunan Perumahan (Persero), Tbk.
4	TOTL	PT. Total Bangun Persada, Tbk.
`5	WIKA	PT. Wijaya Karya (Persero), Tbk.
6	WSKT	PT. Waskita Karya (Persero), Tbk.

Source: processed data (2019)

RESULT AND DISCUSSION

Table 2
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Y	36	-50.99	26.38	12.9561	12.99418
X1	36	.65	21.16	5.0139	5.71740
X2	36	.75	5.67	2.6511	1.33106
X3	36	.39	1.10	.7611	.19365
Valid N (listwise)	36				

Source: processed data (2019)

The analysis of descriptive statistics reveals that the minimum return on equity (ROE) recorded is -50.99, while the maximum stands at 26.38. The lowest value was observed in Nusa Konstruksi Enjiniring Tbk. (DGIK) during the year 2016, whereas the highest ROE was noted in Adhi Karya Tbk. (ADHI) in 2013. These findings indicate that the ROE for the construction companies included in this study ranges from -50.99 to 26.38, with a mean value of 12.9561 and a standard deviation of 12.99418.

Furthermore, the descriptive statistics indicate that the minimum current ratio (CR) is 0.65, and the maximum is 21.16. The lowest CR was recorded for Nusa Konstruksi Enjiniring Tbk. (DGIK) in 2015, while the highest CR was observed in Total Bangun Persada Tbk. (TOTL) in 2012. This suggests that the CR for the sampled construction companies varies between 0.65 and 21.16, with a mean of 5.0139 and a standard deviation of 5.71740.

In terms of the debt to equity ratio (DER), the minimum value is 0.75, and the maximum is 5.67. The lowest DER was again noted for Nusa Konstruksi Enjiniring Tbk. (DGIK) in 2012, while the highest was recorded for Adhi Karya Tbk. (ADHI) in the same year. The results indicate that the DER for the construction firms in this study ranges from 0.75 to 5.67, with a mean of 2.6511 and a standard deviation of 1.33106.

Lastly, the total asset turnover (TATO) shows a minimum value of 0.39 and a maximum of 1.10. The lowest TATO was found in Waskita Karya Tbk. (WSKT) in 2015, while the highest TATO was also recorded for the same company in 2013. These results illustrate that the TATO for the construction companies in this research varies from 0.39 to 1.10.

Normality Test

The normality test indicates that the data is distributed around the diagonal line and adheres to its direction. Consequently, it can be concluded that the data tested with the PP-Plot follows a normal distribution, and the regression model in this study meets the normality test requirements. The Kolmogorov-Smirnov test yielded an Asymp. Sig (2-tailed) value of 0.155, which is greater than 0.05, further confirming that the data is normally distributed.

Multicollinearity Testing

The research findings indicate that the variance inflation factor (VIF) for the variable Current Ratio (CR) is 2.307, which is below the threshold of 10, and the tolerance value is 0.434, exceeding 0.1. This suggests that the regression model does not exhibit multicollinearity. For the Debt to Equity Ratio (DER), the VIF is 2.405, which is also below 10, and the tolerance value is 0.416, greater than 0.1, indicating that this variable does not present multicollinearity issues either. Lastly, the Total Asset Turnover (TATO) variable has a VIF of 1.398, again below 10, with a tolerance value of 0.715, which is above 0.1, confirming the absence of multicollinearity in this variable as well.

Simple Linear Regression Analysis.

The Impact of the Current Ratio (CR) on Return on Equity (ROE).

Based on the results of the simple linear regression analysis, the coefficient for the independent variable X1 is -0.011, and the

constant (a) is 3.719. Consequently, the regression equation model can be expressed as follows:

ROE = a + bCR Y = 3,719 -0,011 X_1

The constant value (a) of 3.719 indicates that when the CR value is 0, the ROE (Y) will equal 3.719. The coefficient of the CR variable is -0.011, which signifies that for each unit increase in CR, the ROE will decrease by 0.011.

The Impact of the *Debt to Equity Ratio (DER)* on *Return on Equity*

Based on the results of the simple linear regression analysis, the coefficient for the independent variable X2 is 1.599, and the constant (a) is 1.147. Consequently, the regression equation can be formulated as follows:

ROE = a + bDER Y = 1,147 + 1,599X_2

The constant value (a) of 1.147 indicates that when the Debt to Equity Ratio (DER) is zero, the Return on Equity (ROE) (Y) will equal 1.147. Additionally, the coefficient of the DER variable, which is 1.599, signifies that for each unit increase in the DER, the ROE will rise by 1.599.

The Impact of the *Total Asset Turnover (TATO)* on *Return on Equity (ROE)*

Based on the results of the simple linear regression analysis, the coefficient for the independent variable X3 is 4.212, and the constant (a) is 0.051. Consequently, the regression equation can be expressed as follows:

ROE = a + bTATO Y = 0,051+ 4,212X_3

The constant value (a) of 0.051 indicates that when the Total Asset Turnover (TATO) is zero, the Return on Equity (ROE) (Y) will also be 0.051. The coefficient of the TATO variable, which is 4.212, signifies that for each unit increase in TATO, the ROE will rise by 4.212.

Multiple Linear Regression Analysis

Table 3. Result of Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	-2.374	.995
	CR	.594	.161
	DER	2.639	.463
	TATO	.822	1.211

a. Dependent Variable: ROE

Based on the results of the multiple linear regression analysis presented in the table above, the coefficients obtained are as follows: current ratio (X1) = 0.594, debt to equity ratio (X2) = 2.639, total asset turnover (X3) = 0.822, and the constant (a) = -2.374. From these values, the regression equation model can be formulated as follows.

ROE = a + CR + DER + TATO Y = -2,374+ 0,594X_1 + 2,639X_2 + 0,822X_3

The dependent variable in this regression analysis is Return on Equity (ROE), denoted as Y, while the independent variables include Current Ratio (CR), represented as X1, Debt to Equity Ratio (DER), denoted as X2, and Total Asset Turnover (TATO), represented as X3. According to the multiple regression equation presented, the regression coefficient indicates a constant value of -2.374, which implies that the ROE would be -2.374 when all independent

variables are equal to zero. The regression coefficient for CR is 0.594, suggesting that an increase of one unit in CR will result in an increase of 0.594 in ROE. Similarly, the regression coefficient for DER is 2.639, indicating that a one-unit increase in DER will lead to an increase of 2.639 in ROE. Lastly, the regression coefficient for TATO is 0.822, which means that a one-unit increase in TATO will enhance ROE by 0.822.

Uji F

The results of the F-test indicate that the calculated F-value is 16.717, which significantly exceeds the critical F-value of 3.28. This finding leads to the conclusion that the independent variables have a substantial simultaneous effect on the dependent variable, further supported by a significance value of 0.000. This significance level is considerably lower than 0.05, indicating a high degree of statistical significance. Consequently, since the calculated F-value (16.717) is greater than the critical F-value (3.28), the null hypothesis is rejected, and the alternative hypothesis is accepted. Therefore, it can be concluded that the variables current ratio (CR), debt to equity ratio (DER), and total asset turnover (TATO) have a significant simultaneous impact on return on equity (ROE) for construction companies listed on the Indonesia Stock Exchange during the period from 2012 to 2017.

Coefficient of Determination

The Adjusted R square value in this study is 0.581. This indicates that the combined effect of the current ratio, debt to equity ratio, and total asset turnover on return on equity is 0.581, or 58.1%. The remaining 41.9% is influenced by variables not included in this research model or by other unidentified factors in the analysis.

CONCLUSION

Based on the analysis of data and the discussion of the research conducted regarding the impact of the current ratio (CR), debt to equity ratio (DER), and total asset turnover (TATO) on return on equity (ROE) in construction companies listed on the Indonesia Stock Exchange (IDX) from 2012 to 2017, the following conclusions can be drawn:

1. Based on the results of the simple linear regression analysis, it can be observed that the current ratio has a t-value of -0.66, which is less than the critical t-value of 1.694, with a significance level of 0.948, exceeding the threshold of 0.05. Therefore, it can be concluded that, on a partial basis, the current ratio does not have a significant effect on return on equity for construction companies listed on the Indonesia Stock Exchange (IDX) during the period from 2012 to 2017.
2. Based on the results of the simple linear regression analysis, it can be observed that the debt to equity ratio has a t-statistic of 4.254, which exceeds the critical t-value of 1.694, with a significance level of 0.000, which is less than 0.05. Therefore, it can be concluded that, on a partial basis, the debt to equity ratio has a significant effect on return on equity for construction companies listed on the Indonesia Stock Exchange (IDX) during the period from 2012 to 2017.
3. Based on the results of the simple linear regression analysis, it can be observed that the total asset turnover has a t-value of 4.212, which exceeds the critical t-value of 1.694, with a significance level of 0.006, which is less than 0.05. Therefore, it can be concluded that, on a partial basis, total asset turnover has a significant effect on return on equity for construction companies listed on the Indonesia Stock Exchange (IDX) during the period from 2012 to 2017.
4. Based on the results of the multiple linear regression analysis, reinforced by the F-test, it can be observed that the calculated F-value of 16.717 exceeds the critical F-value of 3.28, with a significance level of 0.000, which is less than 0.05. Therefore, it can be concluded that the current ratio, debt to equity ratio, and total asset turnover have a significant simultaneous effect on return on equity for construction companies listed on the Indonesia Stock Exchange (IDX) during the period from 2012 to 2017.
5. The R test result in this study is 0.581, indicating a 58.1% collective influence of the current ratio, debt to equity ratio, and total asset turnover on return on equity for construction companies listed on the Indonesia Stock Exchange (IDX) from 2012

to 2017. The remaining 41.9%, represented by a value of 0.419, is attributed to other variables that were not examined in this research.

REFERENCES

Asyah, Anis. 2017. " Pengaruh profitabilitas, struktur aktiva, risiko bisnis, dan likuiditas terhadap struktur modal pada perusahaan *property, real estate*, dan konstruksi bangunan di BEI. *Skripsi*. Institut Agama Islam Negeri Surakarta

Aminatuzzahra. 2010. "Analisis pengaruh Current ratio, Debt to equity ratio, Total asset turnover, net profit margin terhadap ROE". *Skripsi,* Universitas Diponegoro

Ang, Robert. 1997. *Buku Pintar Pasar Modal Indonesia (The Intelligent Guide to Indonesian Capital Market)*. Jakarta: Mediasoft Indonesia.

Diah, Ni Made.dkk 2015. "Analisis Du pont system sebagai salah satu alat mengukur kinerja keuangan perusahaan (Study pada perusahaan rokok yang *listing* di BEI tahun 2011-2013). *Jurnal*. Universitas Brawijaya

Efriyanti, Farida. dkk. 2012. "Analisis kinerja keuangan sebagai dasar investor dalam menanamkan modal pada PT. Bukit Asam, Tbk (Study kasus pada PT. Bukit Asam,TBK)".*Jurnal*, Universitas Bandar lampung

Elfanika, Devy Siswina Arpy. 2012. "Analisis pengaruh CR,TATO,DER,SIZE, dan DR terhadap profitabilitas (ROE) perusahaan (Studi pada perusahaan automotive dan allied product yang terdaftar di BEI tahun 2006-2010)". *skripsi*. Universitas Diponegoro

Ghozali,Imam. 2009*.* *Aplikasi Multivariate dengan Program SPSS*, Semarang : Badan Penerbit Universitas Diponegoro.Mulyadi, (2006), Memahami Akuntansi Keuangan, Edisi 1, PT Raja Grafindo Persada, Jakarta

Hanafi, Mamduh. 2004. *Manajemen Keuangan*, BPFE, Yogyakarta

Hartono. 2015."Pengaruh current ratio dan debt to equity ratio terhadap profitabilitas pada perusahaan manufaktur sektor logam dan sejenisnya yang terdaftar di bursa efek indonesia periode 2009-2013". *skripsi*. Universitas Prima Indonesia

Hendarwati, Henda. 2017. "Analisis current ratio, Debt to equity ratio,dan Total asset turnover terhadap Return on equity". *Skripsi.* Universitas Sangga Buana.

Husnan, Suad. 1998. Dasar-dasar teori portofolio dan analisis sekuritas (Edisi 3) Jakarta: UPP AMP YKYPN

John M.Machowich,Jr & Van Horne. 2016. Prinsip-prinsip manajemen keuangan, edisi 13, buku 1. Jakarta: Salemba Empat

Kurnia, Riza. 2015." Pengaruh *net profit margin*, *current ratio, debt to equity ratio,* dan *total asset turnover* terhadap *return on equity* pada perusahaan manufaktur *go public* yang terdaftar di Bursa Efek Indonesia periode 2010-2013. *Jurna*l. Universitas Nusantara PGRI Kediri

Moeljadi. 2017. " *Financial ratio return on equity dengan net profit margin* sebagai variabel moderator. *Jurnal*. Universitas Muhamadiyah Tangerang

Mukaromah, Ni'matul. 2017. "Pengaruh debt to equity ratio, curent ratio, net profit margin, dan totasl asset turnover terhadap return on equity". *skripsi*. Universitas Nusantara PGRI Kediri

Sandhieko, Hendri. 2009. "Analisis rasio likuiditas, rasio leverage, dan rasio profitabilitas serta pengaruhnya terhadap harga saham pada perusahaan-perusahaan sektor pertambangan yang listing di BEI". *Skripsi*. Universitas Widyatama

Saraswati, Putri, dkk. 2015. "Analisis DU Pont system sebagai salah saltu alat mengukur

kinerja keuangan perusahaan (Studi pada Perusahaan Rokok yang Listing di Bursa Efek Indonesia Tahun 2011-2013). *Jurnal.* Universitas Brawijaya

Sylviana, Anggraini Fitri,dkk. 2012. "Analisis pengaruh *gross profit margin, totasl asset turnover, debt to equity ratio,* dan *current ratio* terhadap *return on equity* (penelitian pada perusahaan *retail trade* yang listing di BEI periode 2007-2011). *Jurnal* . Universitas Telkom

Subagyo, Joko. 1997, *Metode Penelitian dalam Teori dan Praktek*, Rineka Cipta, Jakarta

Palimbong, Lilis Maryani. 2016. "Pengaruh Current Ratio dan Debt to Equity Ratio terhadap tingkat ROA pada perusahaan sektor konstruksi bursa yang terdaftar di Bursa Efek Indonesia (BEI)". *Skripsi.* Universitas Negeri Makasar.

Porangga, Rizki Adriani. 2015. "Pengaruh *current ratio, total asset turnover* dan *debt to equity ratio* terhadap *return on equity* (studi pada perusahaan sub sektor property dan real estate yang terdaftar di BEI periode 2011-2014)". *Skripsi.* Universitas Brawijaya

Puteh, Anwar. 2013. "Pengaruh *current ratio* dan *total asset turnover* terhadap *return on equity* pada perbankan yang terdaftar di Bursa Efek Indonesia. Jurnal. Universitas Malikussaleh

Santo, Lie Kris. 2017. "Pengaruh tingkat likuiditas dan solvabilitas terhadap tingkat profitabilitas perusahaan (study kasus pada sektor konstruksi bangunan di Bursa Efek Indonesia periode 2011-2015). *Skripsi*. Univeritas Katolik Parahyangan

Sugoyono. 2013. *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta: Bandung

Syamsuddin. 2009. *Manajemen keuangan perusahaan*. Jakarta: PT.Raja Grafindo Persada