



## Assessing Long-Term and Short-Term Relationships on Company Profits Through The Company's Internal

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### Abstract

A company must generate profits to survive. In carrying out investments, investors will undoubtedly review when investing in companies based on the company's rate of return on capital. The purpose of the research aims the short-term and long-term relationship between the Current Ratio, Debt To Equity Ratio, Working Capital Turnover, and Net Profit Margin to Return On Equity. This study will use the VECM data panel model for companies that are members of the Jakarta Islamic Index for the 2016-2022. The results here show that the CR, DER, and WCOT have a significant effect on ROE, but not the NPM, which has no significant effect on ROE. The implications of the research results show that ROE, CR, DER, ECTO, and NPM have an influencing relationship with one another. The transformation of one of the variables affects the other variables.

### Keywords:

Profitability; VECM; Long-Term; Short-Term

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## 1. Introduction

Companies that are members of the Jakarta Islamic Index or JII are one of the stock indexes in Indonesia, namely the average stock price index which is calculated for certain stocks that have entered sharia standards. Companies that are members of JII have several objectives. One of the goals is to increase investor confidence so they want to invest in sharia-based stocks and can provide benefits to investors to fulfill Islamic sharia when investing in stock exchanges. However, in 2020 when the Covid-19 pandemic occurred, many companies, including companies in the Jakarta Islamic Index (JII), experienced a significant decline. This decline indicates that the company's low ability to earn profits for shareholders is caused by declining company profits.

The phenomenon when this occurs has been proven by the fact that a company must be able

to continue to generate profits that will be used for the survival of the company. The main point for investors in a company is high profitability, this is because the main interest of investors when investing their capital in a company is to get income or return on investment.

The profitability ratio used as a measuring tool for company profits is Return On Equity (ROE). This ratio provides a good relationship with a change in profit. This ratio is also used to calculate how effective a company is when it creates profits through the utilization of the equity it has. Company performance can be evaluated by analyzing the financial statements. The analysis here will strengthen financial managers and many interested parties to be able to evaluate the financial condition of whether the company is healthy or not

Generate maximum profit, several things influence the level of ROE, one of which is the liquidity ratio which is calculated by the CR. This ratio is a ratio that calculates a company's ability to pay its short-term obligations that will mature when requested as a whole. Debt is one of the important things that become the basis for valuation for investors in calculating the financial condition of the company in which they will invest. In addition, a company must also be able to manage its long-term debt well. One of the ratios used is the DER. This ratio is used as an assessment of a company's debt to equity (Tyas et al., 2021).

ROE describes the company's ability to create profits for investors. Net profit margin (NPM) is the ratio of sales to net profit. The higher the NPM will show that the better the company's performance and the more profits the company gets (Dahlia, 2017). WCTO is the ratio used to calculate the value of the effectiveness of a company's working capital for a certain time. The WCTO will show the relationship between working capital and sales and how much sales a company can get for every rupiah of working capital (Ristianti et al., 2016).

To find out the long and short-term relationships of the factors that affect Return On Equity (ROE), an analysis can be carried out using the Vector Error Correction Model (VECM) method. This method is a restricted form of VAR due to the existence of a non-stationary but cointegrated data form. The Vector Error Correction Model (VECM) is also known as the VAR design for non-stationary series that have cointegration links. The Vector Error Correction Model (VECM) specification restricts the long-term link of all endogenous variables so that they converge on the cointegration link, but still frees the presence of short-term dynamics.

Little previous research regarding Return On Equity (ROE) had inconsistent results. Research by Tyas, Fatonah, & Zahra (2021) explained that the Current Ratio (CR) does not affect Return On Equity (ROE), but it is different from Cahyaningrum & Aziz (2013) who obtained the result that the Current Ratio (CR) has no negative effect significant to Return On Equity (ROE). Rahmah & Asnawi (2019) in their research on the Debt to Equity Ratio (DER) said that the Debt to Equity Ratio (DER) had a significant effect on Return On Equity (ROE), while Argananta & Hidayat (2017) said the Debt to Equity Ratio (DER) no significant effect on Return On Equity (ROE). Next, the research results from Dahlia (2017) namely Net Profit Margin (NPM) affect Return On Equity (ROE), but Wulandari, & Nurdhiana (2012) in their research say that Net Profit Margin (NPM) has no significant effect on ROE. Kusjono and Rohman's research (2020) results that Working Capital Turnover (WCT) has a significant positive effect on Return On Equity (ROE), this is not the same as research by Ristiani, Wardiyah, & Mukhlas (2016) which explains that Working Capital Turnover (WCT) does not significantly influence Return On Equity (ROE)

## **2. Literatur Review**

### **Signal Theory**

Signaling theory is one of the pillar theories when interpreting financial management. Generally, the signal is as a guide by the company (manager) to external parties (investors). The signal can be in various forms, either directly observable or not. The form or type of any signal that is shown, all of that is to indicate something with the intention of the market or external

parties can change their views on the company (Hernawan, 2022)

### 3. Method

#### a) Data types and sources

In the research here, the type of data is using quantitative data. The data source used in this research is secondary data. The data is in the form of panel data from quarterly financial reports for companies that are part of the Jakarta Islamic Index for the 2016-2022 period.

#### b) Population and Sample

##### Population

Sugiyono (2021:126) describes the notion of population, namely the area of generalization which includes objects or subjects and has special characteristics and qualities that have been determined by researchers so that they are understood and then conclusions can be drawn. The research object here is a company listed on the Jakarta Islamic Index (JII). The population is 30 companies.

##### Sample

Samples will be needed if the population being studied has a very large number so researchers are unable to examine all of them due to several reasons. The sample selection method was taken through a purposive sampling technique, namely a selection of samples whose information was obtained through certain criteria (Cahyaningrum & Aziz, 2013)

The following criteria are taken:

- a. Companies listed on the Jakarta Islamic Index (JII) during the 2016-2021 period
- b. Companies that publish full quarterly financial reports in 2016-2021
- c. Companies that use Rupiah in their financial statements
- d. Companies that issue complete information about the components needed when measuring research variables in their financial reports.

The number of samples that meet the criteria is seven companies listed on the Jakarta Islamic Index (JII) for 2016-2021.

#### c) Variable Operational Definition

##### 1) Return On Equity

Return On Equity is a ratio that measures a company's ability to generate net income for shareholders in the form of equity participation paid by shareholders. ROE is important for shareholders because it can show the rate of return on the company shares they own (Ismi et al., 2016). The Return On Equity (ROE) formula is:

$$ROE = \frac{\text{Net profit}}{\text{Total Equity}}$$

##### 2) Current Ratio

The Current Ratio is a ratio that calculates a company's ability to pay its short-term obligations which will soon be due when billed in full (Iyas et al., 2021). The Current Ratio (CR) formula is:

$$CR = \frac{\text{Current Assets}}{\text{Short – term Liabilities}}$$

##### 3) Debt to Equity Ratio

Hery (2015:198) *Debt to Equity Ratio* (DER) yaitu untuk menilai rasio utang terhadap modal. DER akan menunjukkan seberapa besar perbandingan antara total modal dari kreditor dengan total modal dari pemilik perusahaan. Rasio ini juga memberi indikator umum mengenai kelayakan kredit dan risiko keuangan debitur. Rumus *Debt to Equity Ratio* (DER) yaitu :

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

4) Working Capital Turnover

WCTO is a ratio to assess the effectiveness and efficiency of a company in terms of generating income from its working capital. The working capital turnover time is short, which will result in the funds invested in working capital returning to the company more quickly, so that the company can achieve faster profits and the profits earned will also increase (Avisia, 2020). The Working Capital Turnover (WCTO) formula is:

$$WCTO = \frac{\text{Net Sales}}{\text{Working Capital}}$$

5) Net profit margin

Net profit margin (NPM) is a ratio that assesses how efficient a company is by looking at the size of operating profit based on its relation to sales (Dahlia, 2017). The Net Profit Margin formula is:

$$NPM = \frac{\text{Net Profit}}{\text{Sales}}$$

d) Methods of Data Analysis

Based on the available data form, this study uses panel data, and data analysis uses the Vector Error Correction Model (VECM). With the Vector Error Correction Model (VECM) it is hoped that the results of this study will be able to explain the short-term and long-term relationships between variables. The VECM model is mathematical as follows:

$$\Delta Y_t = \sum_{i=1}^{k-1} \Gamma_i \Delta Y_{t-1} - \gamma \beta Y_{t-1} + \varepsilon_t$$

$\Gamma$  = short-circuit coefficient

$\beta$  = Coefficient of a long-term relationship

$\gamma$  = Coefficient of relationship to balance (speed adjustment)

**The stages of data estimation for the VECM model are as follows:**

a. Descriptive Statistical Analysis

Descriptive statistical tests are carried out to understand the explanation of research data which is shown through the mean (mean) as the assumed average population size of the sample, the maximum minimum value in the population, and the standard deviation (standard deviation) when assessing the average dispersion by the sample used (Jony, 2020).

b. Stationarity Test

The unit root test is one way to find out whether the data used is stationary or not. This root test was carried out using the Dicky Fuller (DF) method. Stationarity will be seen from the probability value shown in the test results. Usually, the probability value depends on  $\alpha$  which is 5%. If it is smaller than  $\alpha$ , then the data used is stationary (Tarmin & Rudianto, 2019).

c. Optimal Lag Test

Juanda and Junaidi (2012) state that the main thing in VAR estimation is determining the lag of the VAR system. Optimal lag is needed to obtain the influence of the variables by each variable on other variables in the VAR system. Determination of the optimal lag

can be determined through the criteria of LR (sequential modified Likelihood Ratio test statistic), AIC (Akaike Information Criterion), SC (Schwarz Information Criterion, FPE (Final Prediction Error), and HQ (Hannan-Quinn information criterion) (Apriyani et al., n.d.).

d. Stability Test

After testing to determine how much lag the model can be said to be optimal, so the step taken is to see whether the model is stable or not. This is needed because at the Vector Error Correction Model (VECM) stage there is a forecast that uses IRF and VD forecasting. Where IRF and VD forecasting can be done if the model is in a stable state (Faizin, 2021).

e. Cointegration Test

According to Gujarati & Porter (2006) the difference between the Vector Error Correction Model (VECM) and the VAR model is the Vector Error Correction Model (VECM), all variables must also have a cointegration relationship, to be able to find out the cointegration of all variables can be done using a cointegration test Johansen Cointegration test (Faizin, 2021).

f. VECM model

Sulistiana (2017) explains that the Vector Error Correction Model (VECM) is an improvement from the VAR model. Developments in this model are carried out by paying attention to the links of each variable whether cointegration occurs or not. If most of the variables are cointegrated, then the model used is the Vector Error Correction Model (VECM), while if the values do not cointegrate, then the model used is the VAR model (Faizin, 2021).

g. Granger Quality Test

The causality test here is used to determine whether a variable has a two-way or only one-way relationship. A variable is said to have significant causality if the probability value is less than 5% (Apriyani et al., n.d.).

#### 4. Result and Discussion

##### Model Analysis

After applying the data estimation model, namely the Vector Error Correction Model (VECM) using the Eviews application, the next step is to interpret the results. The discussion regarding the estimation results is explained as follows:

1. Stationarity Test

From the test results, the variables ROE, CR, and WCT were stationary at the level, with all p values <0.05 while the DER and NPM variables were not stationary at the level. Then the test was continued at the first difference level and the results obtained were that all the variables in this study were stationary.

**Table 1. Stationarity Test Results**

Variable	Level Data			1 <sup>st</sup> Differences Data		
	ADF t-Statistik	Prob.	Description	ADF t-Statistik	Prob.	Description
<b>ROE</b>	97.4995	0.0000	Stationary	109.338	0.0000	Stationary
<b>CR</b>	26.2011	0.0244	Stationary	71.1743	0.0000	Stationary
<b>DER</b>	22.3909	0.0709	Not Stationary	72.4390	0.0000	Stationary

<b>WCT</b>	55.9386	0.0000	Stationary	93.1666	0.0000	Stationary
<b>NPM</b>	19.0247	0.1640	Not Stationary	79.8272	0.0000	Stationary

2. Optimal Lag Test

This test is carried out to determine the optimal lag position for the model. Optimal lag length research is seen from the minimum AIC value. Optimal Lag Test Results are shown in Table 2. These results can be understood by paying attention to the highest number of asterisks, and the optimal lag is in the lag 2 positions with the criteria of sequential modified LR test statistics, Final prediction error (FPE), Akaike information criterion (AIC), Schwarz information criterion (SC), Hannan-Quinn information criterion (HQ)

**Table 2. Optimal Lag Test Results**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-531.8044	NA	0.001022	7.303461	7.405176	7.344789
1	-443.0586	170.2469	0.000429	6.436172	7.046464	6.684140
2	-370.6723	133.9393*	0.000226*	5.791460*	6.910329*	6.246068*

Source: *Results of processing with Eviews 12*

3. Stability Test

After selecting the lag, the next step is to ensure that the estimation model is consistent. To find out whether the data is stable or unstable, further research will be carried out using the Stability Test. The stability test on the research data has been presented here and can be seen in Table 3. From the results of table 3, it is known that all modulus values are below 1 so the VAR model satisfies the stability conditions.

**Table 3. Stability Test Results**

Root	Modulus
-0.074420 - 0.847419i	0.850681
-0.074420 + 0.847419i	0.850681
-0.769112	0.769112
-0.118217 - 0.606452i	0.617867
-0.118217 + 0.606452i	0.617867
-0.311062 - 0.290041i	0.425304
-0.311062 + 0.290041i	0.425304
-0.121408 - 0.158368i	0.199551
-0.121408 + 0.158368i	0.199551
-0.002447	0.002447

Source: *Results of processing with Eviews 12*

4. Cointegration Test

The cointegration test results in table 4 explain that the probability value is less than 0.05. So from these results will be continued by using the VECM model.

**Table 4. Cointegration Test Results**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.951865	710.0174	69.81889	0.0000
At most 1 *	0.480558	285.2937	47.85613	0.0000
At most 2 *	0.407586	193.5938	29.79707	0.0000
At most 3 *	0.367762	120.2969	15.49471	0.0000
At most 4 *	0.330199	56.10837	3.841465	0.0000

Source: Results of processing with Eviews 12

The cointegration test results in Table 4 above, there is cointegration in the company profitability equation model listed in JII. This shows that there is a short-term relationship and also a long-term relationship between variables in the research model.

5. VECM models

Based on the results of the VECM, it is explained that the table at the top of the table is the result of a long-term relationship between the five variables namely CR, DER, WCTO, NPM, and WCTO while in the bottom of the table is the interpretation of the short-term relationship of the five variables. To be able to determine the long-term and short-term effects, a comparison is made between T-count and T-table. T table is calculated as follows:

**Table 5. Calculation of T count**

Calculation of the value of T-count	
n (total objects)	168
df = n-1	167
Significance level	0,05
t-count value	1,97427

The following describes the criteria for making decisions based on the results of the T-table test

- If the value of t table < t count, then it has no significant effect
- If the t table value > t count, then it has a significant effect

**Long Term Influence**

**Table 6. Long-term VECM model results**

Long-Term				
Variable	Coefficient	t-Statistics	t-count	Description
CR (-1)	-0.132397	-2.26426	1,97427	Significant
DER (-1)	-0.659237	-11.5863	1,97427	Significant
WCT (-1)	-0.004426	-2.56276	1,97427	Significant
NPM (-1)	1.632344	1.68597	1,97427	Not Significant

Source: Results of processing with Eviews 12

From the results of the long-term VECM in the table above, the following interpretations can be made:

- In the long term, CR has a significant effect on ROE, with a T table value [-2.26426] > a calculated T value [1.97427].
- In the long term, DER has a significant effect on ROE, with a T table value [-11.5863] > a calculated T value [1.97427].
- In the long term, WCT has a significant effect on ROE, with a T table value [-2.56276] > a calculated T value [1.97427].
- In the long run, NPM has no significant effect on ROE, with a T table value [1.68597] < calculated T value [1.97427]

So it can be concluded that in the long term the CR, DER, and WCTO have a significant effect on ROE because the T table value is greater than the calculated T value. Meanwhile, only the NPM has no significant effect on ROE in the long term.

#### Short-Term Effect

**Table 7. Short-term VECM model results**

Variable	Coefficient	Short-Term		
		t-Statistics	t-count	Description
Cointeq1	-4.111563	-36.8928	1,97427	Significant
D(ROE(-1))	2.001327	26.6030	1,97427	Significant
D(ROE(-2))	1.061485	21.5145	1,97427	Significant
D(CR(-1))	-0.387202	-3.86658	1,97427	Significant
D(CR(-2))	-0.226799	-2.25563	1,97427	Significant
D(DER(-1))	-1.927437	-18.2212	1,97427	Significant
D(DER(-2))	-1.019184	-8.97202	1,97427	Significant
D(WCT(-1))	-0.011466	-3.88110	1,97427	Significant
D(WCT(-2))	-0.005564	-1,86728	1,97427	Not Significant
D(NPM(-1))	2.850622	1.53624	1,97427	Not Significant
D(NPM(-2))	1.133463	0.61066	1,97427	Not Significant

Source: *Results of processing with Eviews 12*

From the results of the VECM model in the table above, the following interpretations can be made:

- In the short-term lag 1, CR has a significant effect on ROE, with t-table value [-3.86658] > calculated t-count value [1.97427], and in lag 2 CR also has a significant effect on ROE, with t-table value [-2.25563] > t-count value [1.97427].
- In the short-term lag 1, DER has a significant effect on ROE, with t-table value [-18.2212] > calculated t value [1.97427], and in lag 2 DER also has a significant effect on ROE, with t-table value [-8.97202] > t-count value [1.97427].
- In the short-term lag 1, WCT has a significant effect on ROE, with a t-table value [-3.88110] > t count value [1.97427], but in lag 2 WCT has no significant effect on ROE, with a t-table value [-1.86728] < t-count value [1.97427].
- In the short-term lag 1, NPM has no significant effect on ROE, with t-table value [1.53624] < calculated t value [1.97427], and in lag 2 NPM also has no significant effect on ROE, with t-table value [0.61066] < t-count value [1.97427].

#### 6. Granger Causality Test

The results of the Granger causality test analysis can be seen by looking at the following table.



**Table 8. Granger Causality Test Results**

Null Hypothesis :	Obs	F-Statistic	Prob.
CR does not Granger Cause ROE	154	0.71153	0.4926
ROE does not Granger Cause CR		0.53145	0.5889
DER does not Granger Cause ROE	154	9.26829	0.0002
ROE does not Granger Cause DER		13.2048	5.E-06
WCT does not Granger Cause ROE	154	1.74449	0.1783
ROE does not Granger Cause WCT		2.50212	0.0853
NPM does not Granger Cause ROE	154	0.17413	0.8404
ROE does not Granger Cause NPM		0.58398	0.5589
DER does not Granger Cause CR	154	0.28700	0.7509
CR does not Granger Cause DER		0.20905	0.8116
WCT does not Granger Cause CR	154	1.13017	0.3257
CR does not Granger Cause WCT		0.40741	0.6661
NPM does not Granger Cause CR	154	0.16529	0.8478
CR does not Granger Cause NPM		0.07713	0.9258
WCT does not Granger Cause DER	154	1.64466	0.1966
DER does not Granger Cause WCT		0.04576	0.9553
NPM does not Granger Cause DER	154	4.57678	0.0118
DER does not Granger Cause NPM		0.64759	0.5248
NPM does not Granger Cause WCT	154	2.92026	0.0570
WCT does not Granger Cause NPM		0.50675	0.6035

Source: Results of processing with Eviews 12

From the results of the Granger Causality test, the explanation is as follows:

- a. The CR has no significant effect on ROE, where the probability value is  $0.4926 > 0.05$ . Likewise, ROE does not have a significant effect on the CR with a probability value of  $0.5889 > 0.05$ . So it is concluded that there is no causality between the CR and ROE
- b. The DER significantly affects ROE, with a probability value of  $0.0002 < 0.05$ . Meanwhile, ROE does not affect DER. So it is concluded that there is one-way causality between the DER and ROE, namely only DER which affects ROE.
- c. WCTO has no significant effect on ROE, where the probability value is  $0.1783 > 0.05$ . Likewise, ROE has no significant effect, where the probability value is  $0.0853 > 0.05$ . It was concluded that there was no causality between WCTO and ROE.
- d. NPM has no significant effect on ROE, where the probability value is  $0.8404 > 0.05$ , likewise ROE has no significant effect on NPM with a probability value of  $0.5589 > 0.05$ . So it can be concluded that there is no causality between NPM and ROE.
- e. The DER does not have a significant effect on the CR with a probability value of  $0.7509 > 0.05$ , likewise the CR does not have a significant effect on the DER with a probability value of  $0.8116 > 0.05$ . So, it can be concluded that there is no causality between DER and CR.
- f. WCTO does not have a significant effect on the CR with a probability value of  $0.3257 > 0.05$ , likewise the CR does not have a significant effect on WCTO with a probability value of  $0.6661 > 0.05$ . It can be concluded that there is no causality between WCTO and CR.
- g. NPM does not have a significant effect on the CR with a probability value of  $0.8478 > 0.05$ , so does the CR have no significant effect on the NPM with a probability value of  $0.9258 > 0.05$ . It can be concluded that there is no causality between NPM and CR.

- h. WCTO does not have a significant effect on the DER with a probability value of  $0.1966 > 0.05$ , as well as the DER, does not have a significant effect on WCTO with a probability value of  $0.9553 > 0.05$ . It can be concluded that there is no causality between WCT and DER.
- i. NPM has a significant influence on the DER with a probability value of  $0.0118 < 0.05$ . while the DER is  $0.5248 > 0.05$ . So it is concluded that there is one-way causality between NPM and DER, that is, only NPM affects DER.
- j. NPM has no significant effect on WCTO with a probability value of  $0.0570 > 0.05$ , and WCTO has no significant effect on NPM with a probability value of  $0.6035 > 0.05$ . It can be concluded that there is no causality between NPM and WCTO.

## **Discussion**

The pandemic condition Covid-19 that haunted Indonesia from 2020 until now has weakened almost all economic sectors. Not a few companies have experienced a decrease in revenue due to this pandemic. The profit yield of a company is a determinant of how much investment the company gets. ROE is one of the determining factors for investors in investing their capital in a company, after an analysis using VECM found the results of the influence of CR, DER, WCT, and NPM on ROE.

ROE is a ratio that describes the rate of return obtained by the company from the capital that has been issued for the business. With companies that can pay off their short-term obligations to creditors, it explains that CR has a significant effect on ROE. From the results of the VECM analysis, in the long and short term CR has a significant positive effect on ROE. This is consistent with research conducted by Irman & Purwati (2020), and Lusy et al., (2018) where the Current Ratio has a significant positive effect on ROE. However, it is different from the research conducted by Marito & Sjarif (2020) which states that CR has no significant effect on stock earnings

DER is a ratio that states how far own capital guarantees all debt. When DER increases, ROE also increases, and vice versa. This means that companies that have large debts also have large capital. From the results here it is said that DER has a positive and significant effect on ROE. The results of the research here are the same as those carried out by Nuarto et al., (2020), Lusy et al., (2018).

The WCTO will affect working capital needs with a fixed amount of spending every day. The longer the turnover, the greater the amount of working capital needed because the working capital turnover shows sales created from the working capital used. The VECM results state that in the long run, WCTO has a positive and significant effect on ROE. Same with the research conducted by Kusjono et al., (2020), Widagdo & Sa'diyah, (2021), Jessica et al., (2020).

This study also found that NPM has no significant effect on ROE in both the long and short term. NPM results have the lowest impact on ROE so that the company's ability to earn profits is also low. The decision that must be taken by the owner of the company is to increase sales to create large profits because the NPM is high, the company's performance is also more productive so that it increases investor confidence to invest. The results of this study are in line with (Mahadianto et al., 2020), where NPM does not affect ROE in long-term or short-term relationships. This result is not in accordance with the results by Fitriyani (2019), where NPM affects ROA.

Based on the Granger causality test, it is known that each variable does not have a two-way causality relationship, meaning that each variable does not influence one other. However, several variables only have a one-way quality relationship, namely DER affects ROE and NPM affects DER. While the other variables, there is no Granger causality relationship

## **5. Conclusion**

According to the results obtained, it is stated that CR, DER, WCTO have a significant positive effect on ROE both in the long term and short term relationships, while only NPM has no significant effect on ROE, both in long term and short term relationships.

The probability of each company needs to be considered, where the Return On Equity becomes a profit measurement tool for each company in positive or negative circumstances. So that investors can see negative and positive signals from the profitability of the company that they consider their investment. How to maintain positive profitability, so that this research can provide recommendations for companies, what variables can increase company profitability.

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