



# The Effect of Profitability and Capital Structure on Company Performance in Helping Investors Analyze Financial Information : Market To Book Value and Price Earnings Ratio as a Mediation

Andy Ismail <sup>1</sup> and Djuminah Djuminah <sup>2</sup>

<sup>1</sup> Student of Master Management Faculty Economy and Business, Sebelas Maret University Surakarta, Indonesia

<sup>2</sup> Lecture of Master Management Faculty Economy and Business, Sebelas Maret University Surakarta, Indonesia  
andyismail18@gmail.com

**Abstract.** This research help to investors and analysts evaluate information from company financial reports in reducing economic uncertainty by using economic variables or company variables, that are predicted (observed) to become estimates of company performance. There are several methods that can be used to assess company performance, analysts used by Multiple Regression Analysis method. The ratio approach in this research is Return on Equity, Debt to Equity, Earnings per Share, Market Book Value Equity, Price Earnings and Tobins Q. The main objective of this research is to build an estimation model with these three approaches through mediation to be used as an analytical tool in estimating company performance, then compare which model is better in predicting the company's future investment decisions. The data analyzed in this research is cross section data, only samples that meet the criteria for helping investors are 476 years from 68 manufacturing companies listed on the Indonesia Stock Exchange with an observation period in 2016 - 2022 through purposive sampling. Model testing was carried out using statistical criteria tests and Sobel tests. The findings of this research found that net profit from capital and debt to capital ratio as well as stock market price and book value can influence company performance as investors consider investing their capital. However, net profit from the number of shares outstanding and the assessment of whether a share is expensive or cheap do not influence investment decisions. The novelty of this study helps investors in a sustainable economy regarding economic variables in selecting the best model by looking at the accuracy of the model in predicting investment decisions..

**Keywords:** sustainable economy, company performance, investment decisions.

## 1 Introduction

### 1.1 Background

The COVID-19 pandemic crisis experienced strong contractions in countries that implemented very strict restrictive policies, such as countries in Europe. Not many

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countries to achieve positive economic growth. The level of uncertainty to the crisis is very high, one of which can be seen from the difference between growth projections made and their realization. Volatility intensified as the escalation of Covid-19 occurred in all countries. In 2023, the Covid-19 pandemic will begin to subside, but global uncertainty, especially the recession, is worrying many countries. One of the effects of the war between Russia and Ukraine which took place from February 2022 was to eliminate global GDP of up to US\$ 2.8 trillion. This war disrupted global supply chains, causing a crisis in the most important sectors of food and energy, which ultimately accelerated the rate of inflation. The high global inflation rate will reach 8.8% in 2022. The CBOE volatility index (VIX), an indicator of investors who are anxious to the pandemic, touched an all-time high in mid-March 2020. Investor panic triggered capital flight, switching assets to safe gold, US Treasury Bonds, and American Dollar currency. The IMF reported capital outflows from emerging market countries' financial markets approaching US\$ 100 billion in a relatively short time, or the equivalent of 0.4% of gross domestic product. In this time of crisis, ideally an investor needs information as an appropriate indicator of company performance so that investment decisions can be made accurately and precisely.

The subsequent impact has been on energy prices which have continued to increase since 2021 delayed demand to post-pandemic recovery, which has triggered competition in the energy market [1]. This of course has an impact on the financial difficulties of manufacturing companies whose main fuel is energy, as well as efforts to maintain the company's survival during times of crisis [2]. The crisis period has an important impact on the capital market competition process which is less effective, the unstable business environment and the company's ability to obtain sufficient funds (Chen et al. 2021). The difficulty of obtaining sufficient company funds during times of crisis is about how to optimize the business environment in solving company financing, so this can hinder the company from developing [3].

Capital structure is an urgent issue during times of crisis in changes in corporate decision making as a result of corporate funding. This requires sustainable investment from a company, namely investment with environmental, social and governance (ESG) principles. ESG investing applies the belief that investors and the general public benefit from information.

ESG in company annual reports [4]. The benefit of ESG is that it is an investment strategy to obtain positive market performance. ESG investment influences a company's investment manager to provide evidence of the quality of management and the quality of strategic planning in taking into account the environment, social and governance.

A very important information framework for capital market players, especially investors, is fundamental analysis. Investment theory which predicts a strong relationship between a company's market value and their level of investment. Based on Tobin's q theory which adopts the stock market value of company equity as a proxy for observed value and measured through Tobin's q theory, a simple investment regression on Tobin's q is assumed to have a strong fit. Several recent empirical studies show that this regression can be used to increase the relevance of Tobin's q theory [5]. Helping investors and analysts in evaluating financial information to obtain fair value

from Tobin's Q theory [6] The COVID-19 pandemic and subsequent economic shocks can cause great uncertainty in the capital market, so it can be concluded that this paper is useful for investors other than investors. Prefree shares can assess the company's long-term performance so as to make investment decisions in selected companies based on return on equity ratio, debt to ratio, earnings per share, market book value, price earnings and Tobin's q.

The data in this research are manufacturing sector companies listed on the Indonesia Stock Exchange. The manufacturing sector has an important role in contributing to Indonesia's economic growth. This paper answers whether it is true or whether there is even stronger uncertainty among investors about companies with a high Tobin's Q outperforming companies with a weak Tobin's Q value during economic uncertainty and the collapse due to the COVID-19 pandemic.

## 1.2 Research purposes

This research to help investors and analysts evaluate information from company annual reports in reducing economic uncertainty. In this paper, authors is validated that companies with high quality Tobin's q are more resilient during times of crisis because the company is more effective in dealing with uncertainty and the variables are projected by profitability (return on equity), structure (debt to equity), earnings per share on company performance (Tobin's q) with market to book value and price earnings ratio as mediating variables.

## 1.3 Literature review

Signal theory according to (Zhong, Chen, and Ren 2022) [7] is an action taken by a company to give instructions to investors about how management views a company's value. Investment theory according to (Pan and Long 2021) [8] for stock investment, assessment can be done using profitability, size and the company's ability to grow and solvency. Investment accuracy is in line with company performance according to Tobin's Q theory (Yang and Gan 2021) [9] that building a framework on the level of company investment in order to protect the interests of investors in the general public. One of them is profitability as an indicator of a company efficiently evaluating the company's overall performance with the return on equity ratio, namely assessing the level per share of generating profits [10]. Return on equity convinces investors to prefer companies to invest their income in return on equity. a higher company than a lower company's return on equity. Apart from return on equity, according to (Beigi, Hosseini, and Qodsi 2016) [11] earnings per share performance is used to determine the performance measure of managerial efforts as a growth target for investors interested in holding company shares in the long term and management efforts in capital structure according to (Chen et al. 2021) [12] is of the opinion that the debt to equity ratio measures the debt from an investment that influences the structure of the company so that it can increase the value of the company, according to (Ho, Lee, and Chen 2022) [13] market to book equity is a ratio showing that companies with high market to book equity have more have relatively high fixed assets as a proportion of their

total company value. Price earnings ratio according to (Rahman and Shamsuddin 2019) [14] states that the debt payment ratio and company growth are important predictors of the P/E ratio which generally increases investor sentiment regarding expected investment returns..

1.4 Previous Research

Our paper is also relevant to theoretical studies on investment according to (Wu, He, and Zhang 2021) [15] showing a significant influence on investment which inhibits and reduces company value through share capital, (Vuong 2022) [16] investor sentiment can increase company value seen from company profitability and (Jankensgård and Moursli 2020) [17] company value supports investment through calculating the company's cash flow. Meanwhile (Pollock, Switzer, and Wang 2023) [18] that equity influences company performance as measured by Tobin's q. In line with this paper, I emphasize the role of financial performance in company performance to support the investment made by investors into a company.

1.5 Conceptual Framework

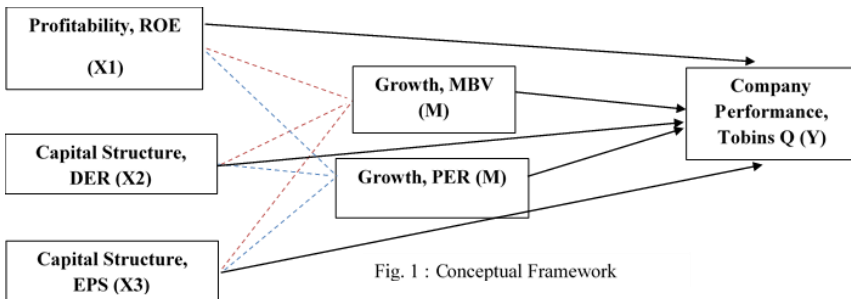


Fig. 1 : Conceptual Framework

Fig. 1. Conceptual Framework

1.6 Hypothesis

Based on the conceptual framework above, the hypothesis used in this research is:

- H1: Return on equity positive effect on Tobin's Q
- H2: Debt to equity positive effect on Tobin's Q
- H3: Earnings per share positive effect on Tobin's Q
- H4: Market to Book Value positive effect on Tobin's Q
- H5: Price to earnings positive effect on Tobin's Q
- H6: Return on equity positive effect on Market to Book Value
- H7: Debt to equity positive effect on Market to Book Value
- H8: Earnings per share positive effect on Market to Book Value
- H9: Return on equity positive effect on Price to earnings
- H10: Debt to equity positive effect on Price to earnings
- H11: Earnings per share positive effect on Price to earnings

H12: Return on equity positive effect on Tobin's Q through Market to Book Value

H13: Debt to equity positive effect on Tobin's Q through Market to Book Value

H14: Earnings per share positive effect on Tobin's Q via Market to Book Value

H15: Return on equity positive effect on Tobin's Q through Price to earnings

H16: Debt to equity positive effect on Tobin's Q through Price to earnings

H17: Earnings per share positive effect on Tobin's Q through Price to earnings

## 2 Method of collecting data

### 2.1 Research Population and Sample

The population in this study are manufacturing sector companies listed on the Indonesia Stock Exchange (BEI). Sampling in this research used a purposive sampling method. Purposive sampling is selecting samples based on certain criteria. The sample criteria in this study are:

- (1) The company is listed as an IPO on the Indonesia Stock Exchange (BEI) from 2016 to 2022.
- (2) The company does not have negative equity value during the 2016-2022 observation period.
- (3) The company did not have a negative current year net profit value during the 2016-2022 observation period.

The companies analyzed by researchers from annual reports, 206 companies in the manufacturing sector were selected, 476 of the 68 companies that met the above criteria.

### 2.2 Research variable

**Dependent variable.** The dependent variable in this research is Tobin's q defined as the sum of the market value of equity and the book value of debt divided by the book value of assets to represent the historical performance and future potential of the company (Jankensgård and Moursli 2020) [17] following the literature, (Vuong 2022) [16] argue that accounting actions are influenced by earnings management decisions. Tobin's Q is calculated using the formula:

$$\text{Tobin's Q} = \frac{\text{Market capitalization} + \text{Total Liabilities}}{\text{Total Asset}} \quad (1)$$

**Independent Variable.** The independent variable of this paper is return on earnings as a popular accounting indicator which is widely used in previous related studies, in line with the paper (Dempsey and Sheng 2023) [10] the expected return on company equity can be seen from the return on equity.

$$\text{ROE} = \frac{\text{Net Income}}{(\text{Total asset} - \text{Total Liabilities})} \quad (2)$$

According to the journal (Smith 2022) [19] debt to equity explains the role of company characteristics in capital decisions and expands the basic factors between debt and equity to estimate the return on an investment.

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}} \tag{3}$$

According to the book (Dereeper and Mashwani 2018) [20] earnings per share can be used as an indicator because earnings per share receive a lot of attention from the analysts financial, investors and potential investors.

**Mediation (Intervening) Variable.** The intervening variable in this research is market book value equity according to (Leonardo et al. 2022) [21] financial analysis which allows for a better decision making process based on the company's historical information in projecting future conditions.

$$MBVE = \frac{\text{Number of shares outstanding} \times \text{Final share price}}{\text{Total Equity}} \tag{4}$$

According to the journal (D'Augusta and Grossetti 2023) [22] price earnings estimate future cash flows which will cause volatility in returns to investors related to company earnings announcements.

### 2.3 Data Analysis Research

The data analysis method is carried out using the multiple linear regression method to influence the direct and indirect influence between the independent variable and the dependent variable or the independent variable through the mediating variable on the dependent variable, seen using the Sobel test. The data analysis process to determine the relationship between variables was carried out by researchers using IBM SPSS 25.0.

## 3 Research Result

### 3.1 Descriptive Statistical Analysis

**Table 1.** Results of Descriptive Statistical Analysis

Variabel	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
Tobin's Q	476	0,25	24,52	2,66	3,26
ROE	476	0,00	2,24	0,14	0,21
DER	476	0,00	5,44	0,79	0,69
EPS	476	0,04	6.164,30	224,27	463,07
MBV	476	0,05	56,79	4,29	7,20
PER	476	0,90	2.393,76	69,01	221,57

Descriptive Statistics					
Variabel	N	Minimum	Maximum	Mean	Std. Deviation
Valid N (Listwise)	476				

Source: Data processed by researchers IBM SPSS 25.0

Based on table 1 above, it is known that the Tobins Q variable has a minimum value of 0.25, a maximum value of 24.52, an average value of 2.66 and a standard deviation value of 3.25. The return on equity variable has a minimum value of 0.00, a maximum value of 2.24, an average value of 0.14 and a standard deviation value of 0.21. The debt to equity variable has a minimum value of 0.00, a maximum value of 5.44, an average value of 0.79 and a deviation value of 0.69. The earnings per share variable has a minimum value of 0.04, a maximum value of 6164.30, an average value of 224.27, and a deviation value of 463.07. The market to book value variable has a minimum value of 0.05, a maximum value of 56.79, an average value of 4.29 and a deviation value of 7.20. The price earnings variable has a minimum value of 0.90, a maximum value of 2393.76, an average value of 69.01 and a deviation value of 221.57.

### 3.2 Regression Analysis Results

From the research, multiple linear regression analysis produces a value that can show the direction of influence of the relationship between variables and the significance value as a basis for accepting or rejecting the hypothesis in the research, the F value is to assess how much influence the independent variable as a whole (simultaneous) has on the dependent variable and R<sup>2</sup> determines how capable independent variable in explaining the dependent variable. Based on testing the results of regression analysis, it can be seen from the following tables:

**Table 2.** Results of Descriptive Statistical Analysis

Description	Coefficient Beta	Statistic-t	Sig.
Constant		16,19	0,00
ROE	-0,82	-3,68	0,00
DER	-0,16	-8,93	0,00
EPS	0,00	0,35	0,72
MBV	1,00	46,19	0,00
PER	-0,15	-0,81	0,41

Tobins Q =  $\alpha + \beta x_1$  return on equity +  $\beta x_2$  Debt to equity +  $\beta x_3$  earnings per share +  $\beta m_1$  market book value +  $\beta m_2$  price earnings + Error (1)

Value F = 553,81 dan Sig = 0,00

Value R Square = 0,85

Source: Data processed by researchers IBM SPSS 25.0

Based on the results of the regression equation in table 2, it can be seen that the F value is 553.81 and the probability value is  $0.00 < 0.05$ , indicating a significant posi-

tive influence and R2 has a value of 0.85, indicating that the overall value of the independent variables has an influence on Tobin's q of 85% and is influenced by variables that not researched by 15%.

**Table 3.** Multiple Linear Regression Results "The Influence of Profitability and Capital Structure on Tobin's Q company performance

Description	Coefficient Beta	Statistic-t	Sig.
Constant		2,43	0,01
ROE	0,45	10,33	0,00
DER	0,18	4,37	0,00
EPS	-0,16	-3,94	0,00

$$\text{Market Book Value} = \alpha + \beta x_1 \text{ return on equity} + \beta x_2 \text{ Debt to equity} + \beta x_3 \text{ earnings per share} + \text{Error (2)}$$

Value F = 57,53 dan Sig = 0,00

Value R Square = 0,26

Source: Data processed by researchers IBM SPSS 25.0

Based on the results of the regression equation in table 3, it can be seen that the F value is 57.53 and the probability value is  $0.00 < 0.05$ , indicating a significant positive influence and R2 has a value of 0.26, indicating that the overall value of the independent variables has an influence on Tobin's q of 26% and is influenced by variables that not researched by 74%.

**Table 4.** Multiple Linear Regression Results "The Influence of Profitability and Capital Structure on the company's book value Market Book Value Equity"

Description	Coefficient Beta	Statistic-t	Sig.
Constant		4,79	0,00
ROE	-0,12	-2,54	0,01
DER	0,73	1,52	0,12
EPS	-0,07	-1,54	0,12

$$\text{Price Earnings} = \alpha + \beta x_1 \text{ return on equity} + \beta x_2 \text{ Debt to equity} + \beta x_3 \text{ earnings per share} + \text{Error (3)}$$

Value F = 4,44 dan Sig = 0,00

Value R Square = 0,027

Source: Data processed by researchers IBM SPSS 25.0

Based on the results of the regression equation in table 4, it can be seen that the F value is 4.44 and the probability value is  $0.00 < 0.05$ , indicating a significant positive influence and R2 has a value of 0.027, indicating that the overall value of the inde-



pendent variable has an influence on Tobin's q of 2.7% and is influenced. variables not studied were 97.3%.

**Significance Test of Indirect Effects.** The significance test of the indirect effect was carried out using the Sobel test to examine the mediation effect for hypothesis twelve.



Fig. 2. Effect of Return on Equity on Tobin's Q through Market Book Value Equity

Based on the picture, it is found that the return on equity variable for Tobin's q has a significant result of 0.00. It can be seen that direction B, the market book value variable, has a significant result of 0.00. So the mediating effect of return on equity on market book value has a significant result of 0.00 and is based on the Sobel test which has been carried out as follows:

Table 5. Results of the Regression Coefficient of Return on Equity on Tobin's Q via Market Book Value Equity

No	Equality	Unstandarized β	Coefficient Std. Error
1	The influence of return on equity on market book value	15,06	1,45
2	The influence of market book value on Tobin's q	0,40	0,00

Source: Data processed by researchers IBM SPSS 25.0

$$X1 = \sqrt{b^2sa^2 + a^2b^2 + sa^2sb^2} \tag{5}$$

$$Sab = 0.6770$$

Table 6. Results of the Sobel Return on Equity Test on Tobin's Q via Market Book Value Equity

Hypothesis	Value Z	T table
The influence of return on equity on Tobin's q through market book value	0,67	1,96

Source: Data processed by researchers IBM SPSS 25.0

Based on the Sobel test, it is known that the partial mediation relationship means that company performance as proxied by Tobin's Q can have a direct influence on the

amount of return on equity generated by the company and the value of the model book value. It can be seen from the results of the Sat and T calculated values that it is found to be  $10.17 > 1.96$  which is greater than the T table.

The significance test for the indirect effect was carried out using the Sobel test to examine the mediation effect for hypothesis thirteen



Fig. 3. Effect of Debt to Equity on Tobin's Q through Market Book Value Equity

Based on the picture, it is found that the debt to equity variable for Tobins Q has a significant result of 0.00. It can be seen that direction B, the market book value variable, has a significant result of 0.00. So the effect of debt to equity mediation on market book value has a significant result of 0.00 and is based on the Sobel test which has been carried out as follows:

Table 7. Results of the Debt to Equity Regression Coefficient on Tobin's Q via Market Book Value Equity

No	Equality	Unstandardized $\beta$	Coefficient Std. Error
1	The effect of debt to equity on market book value	1,87	0,42
2	The influence of market book value on Tobin's q	0,40	0,00

Source: Data processed by researchers IBM SPSS 25.0

$$X2 = \sqrt{b^2sa^2 + a^2b^2 + sa^2sb^2} \tag{6}$$

$$Sab = 0.194$$

Table 8. Results of the Sobel Debt to Equity Test on Tobin's Q via Market Book Value Equity

Hypothesis	Value Z	T table
The influence of debt equity on Tobin's q through market book value	0,19	1,96

Source: Data processed by researchers IBM SPSS 25.0

Based on the Sobel test, it is known that the partial mediation relationship means that company performance as proxied by Tobin's Q can have a direct influence on the amount of debt to equity in the company and the value of the model book value. It can be seen from the results of the Sat and T calculated values that it is found to be  $4.375 > 1.96$  which is greater than the T table.

The indirect effect significance test was carried out using the Sobel test to examine the mediation effect for hypothesis fourteen



Fig. 4. Effect of Return on Equity on Tobin's Q through Price Earnings

Based on the picture, it is found that the return on equity variable for Tobin's q has a significant result of 0.00. It can be seen that direction B, the price earnings variable, has a significant result of 0.41. So the mediating effect of return on equity on price earnings has a significant result - 0.0019 and is based on the Sobel test which has been carried out as follows:

Table 9. Results of the Regression Coefficient of Return on Equity on Tobin's Q via Price Earnings

No	Equality	Unstandarized $\beta$	Coefficient Std. Error
1	The effect of return on equity on price earnings	-131,19	51,62
2	The influence of price earnings on Tobin's q	0,00	0,00

Source: Data processed by researchers IBM SPSS 25.0

$$X1 = \sqrt{b^2sa^2 + a^2b^2 + sa^2sb^2} \tag{7}$$

$$Sab = 0.00$$

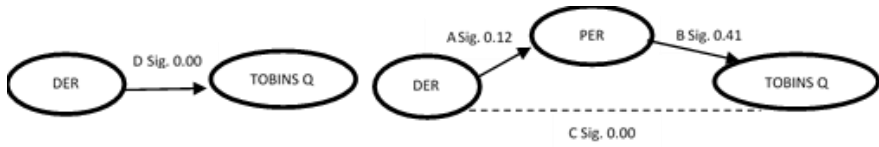
Table 10. Results of the Sobel Return on Equity Test on Tobin's Q via Price Earnings

Hypothesis	Value Z	T table
The influence of return on equity on Tobin's q through price earnings	0,00	1,96

Source: Data processed by researchers IBM SPSS 25.0

Based on the Sobel test, it is known that the partial mediation relationship means that company performance as proxied by Tobin's Q can have a direct influence on the amount of return on equity generated by the company but does not influence the value of price earnings. It can be seen from the results of the Sat and T calculated values that it is found to be  $0.00 < 1.96$  smaller than the T table.

The significance test for the indirect effect was carried out using the Sobel test to examine the mediation effect for hypothesis sixteen



**Fig. 5.** Effect of Debt to Equity on Tobin's Q through Price Earnings

Based on the picture, it is found that the debt to equity variable on Tobin's q has a significant result of 0.00. It can be seen that direction B, the price earnings variable has a significant result of 0.12. So the mediating effect of debt to equity on price earnings has a significant result of - 0.0010 and is based on the Sobel test. has been done as follows:

**Table 11.** Results of the Debt to Equity Regression Coefficient on Tobin's Q via Price Earnings

No	Equality	Unstandarized $\beta$	Coefficient Std. Error
1	The effect of debt to equity on price earnings	23,06	15,17
2	The influence of market book value on Tobin's q	0,00	0,00

*Source: Data processed by researchers IBM SPSS 25.0*

$$X2 = \sqrt{b^2sa^2 + a^2b^2 + sa^2sb^2} \tag{8}$$

$$SAB = 0.00$$

**Table 12.** Results of the Sobel Debt to Equity Test on Tobin's Q via Price Earnings

Hypothesis	Value Z	T table
The influence of debt equity on Tobin's q through price earnings	-0,001	1,96

*Source: Data processed by researchers IBM SPSS 25.0*

Based on the Sobel test, it is known that the partial mediation relationship means that company performance as proxied by Tobin's Q can have a direct influence on the amount of debt to equity in the company but does not influence the value of price earnings. It can be seen from the results of the Sat and T calculated values that it is found to be  $0.0 < 1.96$  which is smaller than the T table.

The significance test for the indirect effect was carried out using the Sobel test to examine the mediation effect for hypothesis seventeen



**Fig. 6.** Influence of Earnings Per Share on Tobin's Q through Price Earnings

Based on the picture, it is found that the earnings per share variable for Tobin's q has a significant result of 0.72. It can be seen that in direction B the price earnings variable has a significant result of 0.41. So the mediating effect of earnings per share on Tobin's q through price earnings has a significant result of 0.0011 and is based on the Sobel test which has been carried out as follows:

**Table 13.** Results of the Regression Coefficient of Earnings Per Share on Tobin's Q via Price Earnings

No	Equality	Unstandardized $\beta$	Coefficient Std. Error
1	The effect of earnings per share on price earnings	-0,03	0,02
2	The influence of market book value on Tobin's q	0,00	0,00

Source: Data processed by researchers IBM SPSS 25.0

$$X3 = \sqrt{b^2sa^2 + a^2b^2 + sa^2sb^2} \tag{9}$$

$$SAB = 0.00$$

**Table 14.** Results of the Sobel Earnings Per Share Test on Tobin's Q via Price Earnings

Hypothesis	Value Z	T table
The influence of earnings per share on Tobin's q through price earnings	0,001	1,96

Source: Data processed by researchers IBM SPSS 25.0

Based on the Sobel test, it is known that the partial mediation relationship means that company performance as proxied by Tobin's Q does not have a direct influence on the amount of earnings per share in the company and does not influence the value of the model book value. It can be seen from the results of the Sat and T calculated values that it is  $0 < 1.96$  which is smaller than the T table.

## 4 Hypothesis Testing and Discussion

This research resulted in fourteen hypothesis tests that have been carried out, the results can be seen from the following explanation:

1. The first hypothesis states that Return on equity a positive effect on Tobin's Q. Accepted. It is known from table 2 that the Return on equity variable has a regression coefficient value of -0.083 and a significance value of 0.00 which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
2. The second hypothesis states that Debt to equity a positive effect on Tobin's Q. Accepted. It is known from table 2 that the Debt to equity variable has a regression coefficient value of -0.169 and a significance value of 0.00 which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
3. The third hypothesis states that Earnings per share a positive effect on Tobin's Q. Rejected. It is known from table 2 that the Earnings per share variable has a regression coefficient value of 0.007 and a significance value of 0.724 which is greater than  $\alpha$ : 5% ( $p < 0.05\%$ ).
4. The fourth hypothesis states that Market to Book Value a positive effect on Tobin's Q. Accepted. It is known from table 2 that the Market to Book Value variable has a regression coefficient value of 1.001 and a significance value of 0.00, which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
5. The fifth hypothesis states that Price to earnings a positive effect on Tobin's Q. Rejected. It is known from table 2 that the Price to earnings variable has a regression coefficient value of -0.15 and a significance value of 0.418 which is greater than  $\alpha$ : 5% ( $p < 0.05\%$ ).
6. The sixth hypothesis states that Return on equity a positive effect on Market to Book Value. Accepted. It is known from table 3 that the Return on equity variable has a regression coefficient value of 0.450 and a significance value of 0.00 which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
7. The seventh hypothesis states that Debt to equity a positive effect on Market to Book Value. Accepted. It is known from table 3 that the Debt to equity variable has a regression coefficient value of 0.182 and a significance value of 0.00, which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
8. The eighth hypothesis states: Earnings per share a positive effect on Market to Book Value. Accepted. It is known from table 3 that the Earnings per share variable has a regression coefficient value of -0.164 and a significance value of 0.00 which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
9. The ninth and sixth hypothesis states that Return on equity a positive effect on Price to earnings. Accepted. It is known from table 3 that the Return on equity variable has a regression coefficient value of -0.127 and a significance value of 0.00 which is smaller than  $\alpha$ : 5% ( $p < 0.05\%$ ).
10. The tenth hypothesis states that Debt to equity a positive effect on Price to earnings. Rejected. It is known from table 3 that the Debt to equity variable has a regression coefficient value of 0.073 and a significance value of 0.129 which is greater than  $\alpha$ : 5% ( $p < 0.05\%$ ).

11. The eleventh hypothesis states: Earnings per share a positive effect on Price to earnings. Rejected. It is known from table 3 that the Earnings per share variable has a regression coefficient value of -0.164 and a significance value of 0.124 which is greater than  $\alpha$ : 5% ( $p < 0.05\%$ ).
12. The twelfth hypothesis states that Return on equity a positive effect on Tobin's Q through Market to Book Value. Accepted. It is known from table 6 that it can be seen from the results of the calculated Sat and T values that it is found to be  $10.17 > 1.96$  which is greater than the T table.
13. The thirteenth hypothesis states: Debt to equity a positive effect on Tobin's Q through Market to Book Value. Accepted. It is known from table 8 that it can be seen from the results of the calculated Sat and T values that it is found to be  $4.375 > 1.96$  which is greater than the T table.
14. The fourteenth hypothesis states: Earnings per share a positive effect on Tobin's Q through Market to Book Value. Rejected. It is known from table 10 that it can be seen from the results of the calculated Sat and T values that it is found that  $0 < 1.96$  is smaller than the T table.
15. The fifteenth hypothesis states that Return on equity a positive effect on Tobin's Q through Price to earnings. Rejected. It is known from table 12 that it can be seen from the results of the calculated Sat and T values that it is found that  $0 < 1.96$  is smaller than the T table.
16. The sixteenth hypothesis states: Debt to equity a positive effect on Tobin's Q through Price to earnings. Rejected. It is known from table 14 that it can be seen from the results of the calculated Sat and T values that it is found that  $0 < 1.96$  is smaller than the T table.
17. The seventeenth hypothesis states: Earnings per share a positive effect on Tobin's Q through Price to earnings. Rejected. It is known from table 16 that it can be seen from the results of the calculated Sat and T values that it is found to be  $0 < 1.96$  which is smaller than the T table.

#### 4.1 Discussion

One empirical evidence regarding the positive relationship between the book value ratio influences the return on good company performance between the past and future of a company [23]. This answers hypotheses 6, 7, 8, 12 and 13 which have a significant positive effect and are accepted. Book value can project sample research that suffered losses during the COVID-19 pandemic, there by impacting the company's revenue-generating performance. This is relevant to research (Ball et al. 2020) [24] which states that book value can act as an indicator of normal income and loss-making companies. There are variables that include the role of book value assessment such as income and capital structure. Furthermore, the regression results, if we look at the return on equity through share prices (PER) on financial performance. Price earnings estimates the cash flow of a company which will cause volatility in returns to investors related to company earnings announcements [22].

## 5 Conclusion

This paper answers investors' questions about getting a company's performance through profitability ratios (return on equity), structure (debt to equity), earnings per share on company performance (Tobin's q) with market to book value and price earnings ratio. As in research (Leonardo et al. 2022) [21] which reaffirms Tobin's q as a measure of company performance. Because crises that cause uncertainty such as COVID-19 are very large and sentiment from the news is often not filtered about the future prospects of a company. Therefore, this paper is useful for company financial sustainability and helps investors and analysts evaluate information from company annual reports in reducing economic uncertainty. In this paper, I argue that companies with high quality Tobin's q are more resilient during times of crisis because the company is more effective in dealing with uncertainty.

To test this uncertainty, I use a sample of companies that had positive net profits during the crisis period and were listed on the Indonesian stock exchange during the observation period. In line with research (Karolyi, Kim, and Liao 2020) [25] shows that companies with company performance increase public confidence as investors and avoid uncertainty.

Finally, it can be concluded that company performance projected using Tobin's q can play its role in responding to the uncertainty of the effects of the COVID-19 pandemic and future economic shocks with the validity of the results of this paper.

### 5.1 Research Suggestions

Future research might consider whether there are “normative” reasons for regulations that impose different performance ratios.

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