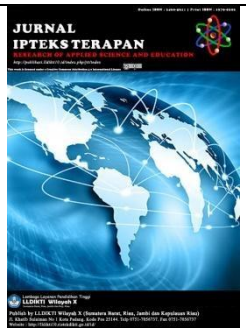


Vol. 17 No. 3 2023

THE INFLUENCE OF ROA, ROE, AND NPM ON PRICE BOOK VALUE

Apip[1)], Clara Yully Diana Ekaristi[2)]
Vocational School Diponegoro University
* Corresponding Email: apip746@gmail.com

Submit :
13/15/2023

accept :
26/07/2023

Publish :
31/07/2023

Abstract

This research aims to test the influence of Return on Assets, Return on Equity, and Net Profit Margin on Price Book Value. There were 30 manufacturing companies registered in Indonesian Stock Exchange during 2019-2021 which become samples of this research. Method in sampling using purposive sampling method. Tests used consists from test assumption classic that part that test normality , test multicollinearity , test heteroscedasticity. Test multiple linear regression part that test hypothesis in a manner partial (T test), test hypothesis in a manner simultaneously (test F), test coefficient determination (R2). The results of this research show that Return on Asset variable significantly influence on Price Book Value of manufacturing companies listed on the IDX for the 2019-2021 period with value of 0.042. The analysis result of Return on Equity with value of 0.369 do not significantly influence the Price Book Value of manufacturing companies listed on the IDX for the 2019-2021 period, and Net Profit Margin with value of 0.139 do not significantly influence the Price Book Value of manufacturing companies listed on the IDX for the 2019-2021 period.

Keywords: net profit margin, price book value, return on asset, return on equity.

http://publikasi.lldikti10.id/index.php/jit DOI : https://doi.org/10.22216/jit.v17i3.2285 PAGE : 583-591

ISSN : 1979-9292 / 2460-5611 © 2023 Higher Education Service Institute Region X

JIT is Sinta 3 Journal (https://sinta3.kemdikbud.go.id/journals/profile/2143) accredited by the Ministry of Research & Technology, Republic of Indonesia

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

INTRODUCTION

The development of the manufacturing industry in Indonesia keeps increasing every year. It is reflected in the achievements of Purchasing Managers Index of Indonesian Manufacturing released by the Minister of Industry Agus Gumiwang. The Index shows the point above 50 throughout 2022. This is a positive sign for all economic actors in Indonesia. After going through a pandemic period of approximately 3 years, we hope that the growth of the manufacturing industry in Indonesia will be a good start to welcoming economy recovery.

The manufacturing industry, as we all know, is an industry engaged in processing raw materials and then processing them until they are ready for use by the end consumer. The greater the number of goods produced, the greater the resources needed to run a business in the manufacturing industry. In line with the increase in the manufacturing industry in Indonesia, it is for sure that it is good news for all levels of society. One of them is the opening of employment opportunities to reduce the unemployment rate in Indonesia.

On the other hand, in order to enter the economy recovery period, leaders of companies surely will formulate strategies to achieve goals in the financial sector. If the companies want to find a source of funds in a certain amount, it can register the company on the Indonesia Stock Exchange.

The main thing must be considered by leaders of companies is that investors do not spend a certain amount of money for nothing, they also hope to get profit sharing in the future. According to Abid Djauli (2006:51) the ups and downs of share values will be listed in the annual financial reports that have been made. This data will be used by investors as a basis for consideration in determining investment choices.

Investors can search for financial information on manufacturing companies through the official website of the Indonesia Stock Exchange. Through the financial reports available on the website of the Indonesia Stock Exchange, investors can dig up some of the information needed to plan stock investments. Good company performance will increase the value of the company. In addition, investor confidence will increase simultaneously.

According to Hanafi and Hakim (2004) return on assets (ROA) is a ratio that measures the company's ability to generate profits by using the total assets (wealth) owned by the company after adjusting the costs for fund these assets. Return on investment (ROI) as measured by net profit after tax on total assets shows the productivity of the entire company's performance.

Return on equity is a financial ratio used to measure the profitability of equity (Dewi et al., 2014). The higher the ROE value, the greater the opportunity to increase the interest of investors because the potential profit to be obtained is higher for shareholders, and also affects the value of a company. The data generated from ROE is most in demand by investors for analysis. Because, when compared to ROI and ROA, the data generated through ROE is the cleanest data, because it has been reduced by various types of company expenses in a certain period.

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

Moreover, investors can see the net profit margin to analyze the company's performance. Net Profit Margin is the ratio used to describe a company's performance in obtaining net profits after being deducted by taxes. According to Bastian and Suhardjono, Net Profit Margin is the comparison between net profit and sales.

A large net profit margin (NPM) illustrates that the company is managed professionally and has good performance, thereby obtaining a large net profit through its sales activities (Syamsuddin, 2011:62). This ratio illustrates the percentage of net profit earned from each sales transaction made. The greater the ratio, the higher company's ability to earn profits.

Therefore, investors will only spend their funds on companies that have a good track record. The higher the percentage of profit earned by the company, the higher the dividend distributed to shareholders. Bolten and Weigand said that the hope of getting greater incentives in the future has a positive effect on stock prices.

However, referring to research conducted by Gerald Essel, et al., entitled "The Influence of Return On Assets (ROA), Return On Equity (ROE), Net Profit Margin (NPM), and Earning Per Share (EPS) on Share Prices of Companies Joining In the LQ45 Index in the Indonesia Stock Exchange for the 2013-2015 period", it said that there is no significant effect of NPM on stock prices.

RESEARCH METHODS

Influence of Return on Assets on price book value

The smaller or lower this ratio, the poorer the company's performance will be. And vice versa, if the greater or higher this ratio, the better the company's performance, the relationship between profitability and value company can be formulated through the following hypothesis:

H1: Return on assets has a positive effect on price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

The Influence of Return on Equity on price book value

Return on equity can be used to measure the extent to which management's level of success in managing and using company capital in providing reciprocity to shareholders; the higher the resulting ratio, the better because it provides a greater rate of return to shareholders.

H2: Return on equity has a positive effect on price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

Effect of Net profit margin on price book value

The more significant the NPM, the more productive the company's performance. This will have the effect of increasing investor confidence to spend their funds in the company. The higher the level of NPM, shows the company's ability to be reliable in obtaining net profit.

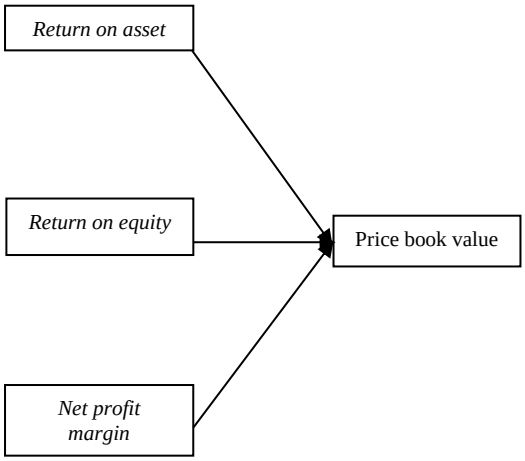
H3: Net profit margin has a positive influence on price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

Conceptual Framework



The above conceptual framework can be interpereted that the price book value as the dependent variable, influenced by return on asset, return on equity, and net profit margin as independent variable.

Classic Assumption Test

Normality Test

The normality test intends to evaluate whether in the regression model, confounding and residual variables have normal distribution.

Multicolonierity Test

The multicollinearity test is intended to evaluate whether the regression model has a relationship between independent variables.

Heteroscedasticity Test

The heteroscedasticity test is intended to evaluate whether in the regression model there are differences in variance in the residuals of one monitoring for other monitoring.

Research Data Analysis Model

Testing using multiple linear regression was carried out on each independent variable (X) return on asset, return on equity, net profit margin on the variable (Y), namely price book value. This aims to see a clearer effect of each interaction. After that, an analysis was carried out to find out whether there was an effect of return on asset, return on equity, net profit margin on price book value. In line with this, data is needed consisting of groups from the results of questionnaire calculations so that the following equation is produced:

$$\mathbf{Y=\beta_{0+}\ \beta_1.X_1+\ \beta_2.X_2+\ \beta_3.X_3}$$

Y = Price Book Value

X_1 = ROA

X_2 = ROE

X_3 = NPM

Testing this hypothesis, the researcher used the t test. This t-test is used to determine the level of significance between each variable on price book value. The t statistical test basically shows how far the influence of an independent variable individually explains the variation of the dependent variable (Ghozali, 2001). While the Simultaneous Test or F Test is used to determine whether there is a joint effect between the independent variables on the dependent variable that has been determined previously by the researcher.

RESULTS

Descriptive Statistical Analysis

The variables in this study are explained through descriptive statistical analysis. The variables tested in this study are return on assets, return on equity, net profit margin, and price book value.

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	84	.04	.70	.2862	.18896
ROE	84	.10	.90	.4131	.24923
NPM	84	.10	1.13	.4273	.25395
PBV	84	.27	2.83	1.1114	.65829
Valid N (listwise)	84				

Table 1. Descriptive Statistics

It can be seen that N or the total amount of data for each variable is 84 during the 2019-2021 period. The average value of price to book value in this study is 1.1114 times. The average net profit margin value in this study is 0.4273 times. The average value of return on equity in this study is 0.4131. The average value of return on assets in this study is 0.2862 times.

Classical Assumption Analysis

Normality test

Normality is held to find out whether in a regression model, the variables studied, both independent and dependent variables, have a normal distribution or not. The normality test in this study was carried out by graphical analysis. To find out normality in graphical analysis, it can be seen through the normal probability plot which compares the cumulative distribution of the normal distribution. The normal distribution will form a straight diagonal line, and the residual data plotting will be compared with the diagonal line. If the distribution of residual data is normal, then the line showing the data will follow the diagonal line.

Normality can be seen through the distribution of data or points on the diagonal axis of the graph or by looking at the residual histogram on the basis of decision making.

- If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram shows a normal distribution pattern, then the regression model meets the assumption of normality.

If the data spreads far from the diagonal and/or does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution pattern, then the regression model does not meet the assumption of normality.Click or tap here to enter text.

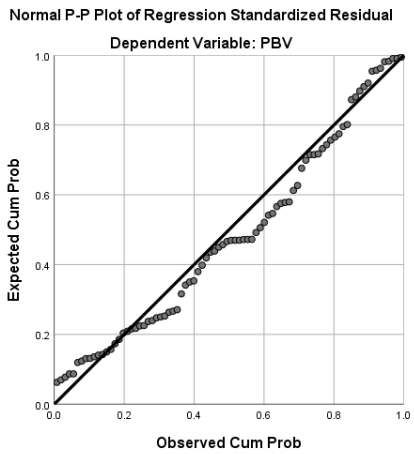


Figure 1. Normality Test with the Normal Probability Plot Approach

From figure 1, it can be seen that the data spreads around the diagonal line and follows the direction of the diagonal line which indicates that the data is normal.

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

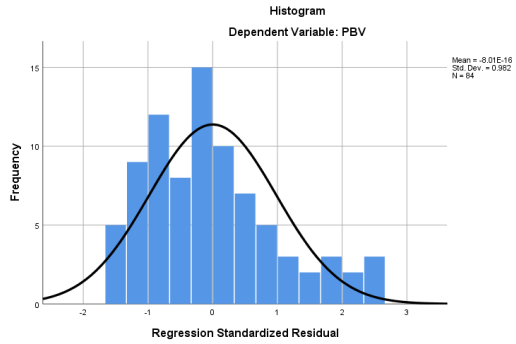


Figure 2. Histogram Graph

From figure 2, it can be seen that the data is normally distributed from the shape of a bell-like curve, not skewed to the left or right.

Multicollinearity Test

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	ROA	.987	1.014
	ROE	.984	1.017
	NPM	.974	1.026

a. Dependent Variable: PBV

Table 2. Multicollinearity Test Results

The VIF result on ROA is 1.014, the VIF result on ROE is 1.017, the VIF result on NPM is 1.026. It can be seen that all VIF results are <10, therefore it can be said that they do not experience multicollinearity.

Heteroscedasticity Test

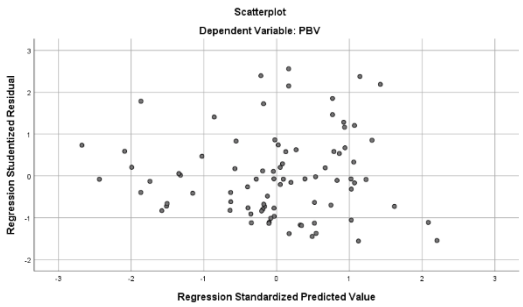


Figure 3. Scatterplot Heteroscedasticity Test

The dots are spread far from the number 0 on the Ordinate axis which proves that this study has no symptoms of heteroscedasticity.

Multiple Linear Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.047	.199		5.251	.000
	ROA	-.774	.376	-.222	-2.062	.042
	ROE	.258	.285	.097	.903	.369
	NPM	.420	.281	.162	1.494	.139

a. Dependent Variable: PBV

Table 3. Multiple Linear Regression Analysis

$Y = (1{,}047) – 0{,}774X1 + 0{,}258X2 + 0{,}420X3 + e$

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

From the multiple linear regression equation above, it can be explained as follows:

1. The constant value (a) has a positive value of 1,047. The positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable. This shows that if all the independent variables include ROA (X1), ROE (X2), NPM (X3).
2. The regression coefficient value for the ROA variable (X1) is -0.774. This value indicates a negative effect (opposite direction) between the ROA and PBV variables. This means that if the ROA variable increases by 1%, then on the contrary the PBV variable will decrease by -0.774. Assuming that other variables remain constant.
3. The regression coefficient value for the ROE variable (X2) has a positive value of 0.258. This shows that if ROE increases by 1%, PBV will increase by 0.258 assuming the other independent variables are held constant. The positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable.

The regression coefficient value for the NPM variable (X3) has a positive value of 0.420. This shows that if capital intensity increases by 1%, PBV will increase by 0.420 assuming the other independent variables are held constant. The positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable.

T Test

In table 3 it can be seen the level of significance of each variable studied.

Hypothesis 1

Based on the t statistical test the significance level is 0.042. The significance value is less than 0.05. It can be interpreted that the variable return on assets (X1) has a significant influence on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

Hypothesis 2

Based on the t statistical test the significance level is 0.369. The significance value is more than 0.05. It can be interpreted that return on equity has no significant effect on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

Hipotesis 3

Based on the t statistical test the significance level is 0.139. The significance value is more than 0.05. It can be interpreted that the net profit margin has no significant effect on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.986	3	.995	2.414	.043[b]
	Residual	32.981	80	.412		
	Total	35.967	83			

a. Dependent Variable: PBV

b. Predictors: (Constant), NPM, ROA, ROE

Table 4. F Test

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V17.i3 (582-591)

ISSN : 1979-9292

E-ISSN : 2460-5611

Based on the table, it can be concluded that H0 is rejected and H1 is accepted. This can be seen from the calculated F value of 2.414. While the resulting significance value is 0.043 which is smaller than 0.05. Thus it can be concluded that the multiple regression model is feasible to use, and the independent variables which include return on assets, return on equity, and net profit margin have a simultaneous influence on the dependent variable price book value.

R2 Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.288[a]	.831	.492	.64208

a. Predictors: (Constant), NPM, ROA, ROE

b. Dependent Variable: PBV

Table 5. R2 Test

Based on the table, it shows that 83,1% of price book value value is influenced by return on asset, return on equity, and net profit margin. Tthe remaining 16,9% is influenced by other factors not included in the model.

CONCLUSION

Based on this research, it can be concluded that:

1. Return on assets has a significant influence on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.
2. Return on equity has no significant effect on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.
3. Net profit margin has no significant effect on the price book value of manufacturing companies listed on the IDX for the 2019-2021 period.

REFERENCES

[1] Abukosim, Mukhtaruddin, I. S., & Claudya Nurcahaya. (2014). Ownership Structure and Firm Values: Empirical Study on Indonesia Manufacturing Listed Companies. Journal of Arts, Science & Commerce, 5(4), 1–14.
[2] Bayu Irfandi Wijaya, & I.B. Panji Sedana. (2015). Pengaruh Profitabilitas Terhadap Nilai Perusahaan (Kebijakan Dividen dan Kesempatan Investasi Sebagai Variabel Mediasi). E-Jurnal Manajemen Unud, 4(12), 4477–4500.
[3] Brigham, E. F., & Joel F. Houston. (2010). Fundamentals of Financial Management. Jakarta : Salemba Empat.
[4] Hariyanto, M. S., & Lestari, P. V. (2015). Pengaruh Struktur Kepemilikan, Ios, dan Roe Terhadap Nilai Perusahaan Pada Perusahaan Food And Beverage. E-Jurnal Manajemen Unud, 4(4), 1599–1626.
[5] Hasibuan Moch Dzulkirom N G Wi Endang NP, V. A. (2016). Pengaruh Leverage dan Profitabilitas Terhadap Nilai Perusahaan (Studi pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2012-2015). In Jurnal Administrasi Bisnis (JAB)|Vol (Vol. 39, Issue 1).
[6] Indriyani, E. (2017). Pengaruh Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan. Akuntabilitas, 10(2).
[7] Irayanti, D., & Altje L. Tumbel. (2014). Analisis Kinerja Keuangan Pengaruhnya Terhadap Nilai Perusahaan Pada

ISSN : 1979-9292
E-ISSN : 2460-5611

Industri Makanan dan Minuman Di BEI. Jurnal EMBA, 2(3), 1473–1482.

[8] Kartika, O. :, Tanjung, R., & Halawa, S. (2022). Pengaruh Return On Assets dan Return On Equity Terhadap Nlai Perusahaan Pada Perusahaan Manufaktur Sector Otomotif dan Komponennya Yang Terdaftar di Bursa Efek Indonesia. Jurnal Neraca Agung, 12(1), 1–8.

[9] Lumoly, S., Murni, S., & Untu, V. N. (2018). Pengaruh Likuiditas, Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan (Studi pada Perusahaan Logam dan Sejenisnya yang Terdaftar di Bursa Efek Indonesia). In Pengaruh Likuiditas. 1108 Jurnal EMBA (Vol. 6, Issue 3)

[10] Novari, P. M., & Lestari, P. V. (2019). Pengaruh ukuran perusahaan, leverage, dan profitabilitas terhadap nilai perusahaan pada sector properti dan real estate. E-Jurnal Manajemen Universitas Udayana, 5(9).

[11] Rizqia Muharramah, & Zulman Hakim, M. (2021). Pengaruh Ukuran Perusahaan, Leverage, Dan Profitabilitas Terhadap Nilai Perusahaan. Jember Press, 569–576.

[12] Sugiyono. (2016). Metode Penelitian Kuantitatif Kualitataif dan R&D by Sugiyono. PT Alphabet.

[13] Suklimah Ratih, & Yulia Setyarini. (2014). Pengaruh Good Corporate Governance (Gcg) dan Corporate Social Responsibility (Csr) Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variable Intervening Pada Perusahaan Pertambangan Yang Go Public di Bei. Jurnal Akuntansi, 5(2).

[14] Tania, R. N. (2019). Pengaruh Ukuran Perusahaan, Leverage, Profitabilitas dan Kebijakan Dividen terhadap Nilai Perusahaan (studi pada perusahaan lq45 yang terdaftar di bursa efek indonesia 2014-2017). Universitas Negeri Yogyakarta.

[15] Yuen, D. P., & Wasif, K. (2016). Pengaruh Kinerja Keuangan dan Corporate Social Responsibility Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Manufaktur Sektor Aneka Industri Yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2018). Sekolah Tinggi Ilmu Ekonomi Indonesia.