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Research Article

Factors Influencing Financial Performance in Manufacturing Companies

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Abstract: *This study aims to examine the role of profitability in mediating sales growth, company size, and capital structure on the company's value. The object of this research is all manufacturing companies listed on the Indonesia Stock Exchange for the 2020-2024 period. This study uses a quantitative approach with a sample of 102 manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period, which was selected by purposive sampling with certain criteria. The data analysis used is SmartPLS 4.0. The results of the study prove that Growth has a significant positive effect on Price Book Value. LN Size has a significant positive effect on Price Book Value. The Debt to Equity Ratio has a significant negative effect on Price Book Value. Growth in Price Book Value with Return on Equity as a mediating variable has a significant positive effect. LN Size on Price Book Value with Return on Equity as a mediating variable has a significant positive effect. The Debt to Equity Ratio to Price Book Value with Return on Equity as a mediating variable had a positive effect, on the effect of not significant.*

Keywords: *Growth, LN Size, Debt to Equity Ratio, Return on Equity, Price Book Value.*

1. Introduction

In the current era of globalization, economic development in the business world is developing so rapidly that it easily creates competition in the increasingly fierce business world. Today's businesspeople are competing to be more creative in maintaining their businesses and gaining a competitive advantage over others. The purpose of establishing a company is to make a profit; profits are generated from the company's activities over a period. Normatively, the company's goal is to obtain efficient profits. In addition to making profits, another main goal is the prosperity of issuer owners by increasing the value of the company. According to Martono, 2012; Sondakh, 2019) in the research, of stated that company value is an assessment from investors of the future success of a company in terms of money and time.

Company size, often measured by total assets or the natural logarithm of assets (LN Size), is also an important indicator in determining company value. Companies with large assets tend to be more stable and have broader access to financing sources. However, several studies have shown that large size does not always guarantee high efficiency and profitability. Research by Hidayat and Khotimah, 2022; Bossman et al.,2022; Fathoni & Syarifudin, 2021) found that company size significantly influences profitability, but its impact on company value requires further study.

Capital structure, particularly the ratio of debt to equity, also plays a crucial role in shaping firm value. An optimal capital structure allows a company to minimize the cost of capital and maximize value. Research by Adityaputra and Perdana (2024) state that capital structure has a direct influence on firm value, but the results vary depending on the industry sector and company conditions.

Meanwhile, (Ratna Ari Artanti1, 2022) emphasizes the importance of considering the financial risks arising from excessive debt use.

Profitability, as measured by Return on Equity (ROE), is a key indicator for assessing a company's financial performance. High profitability indicates efficiency in generating returns on equity and typically positively impacts investor interest and increases the company's stock value (Anik, 2022). In various studies, profitability is also often used as a mediating variable explaining the relationship between a company's fundamental variables and its value (Widya Prasetyandari, 2021 ;Ayoush et al. 2021).

One of the commonly used measures of company value is *Price to Book Value*, which reflects the comparison between the stock market and the company's book value. The higher the PBV, the higher the company's value in the eyes of investors(Sondakh et al., 2019). Company size, which is often measured through total assets or the natural logarithm of assets, is also an important indicator in determining the value of the company. Companies with large assets tend to be more stable and have wider access to sources of financing. Company size, which is often measured through total assets or the natural logarithm of assets, is also an important indicator in determining the value of the company. Companies with large assets tend to be more stable and have wider access to sources of financing.

Table 1. Average Sales Growth, Company Size, Debt to Equity Ratio, Return On Equity, and Price Book Value in Manufacturing Companies

Year	Sales Growth	Ln Size	DER	ROE	PBV
2020	-1,05%	2913,91%	19,49%	13%	262,93%
2021	22,47%	2922,04%	18,21%	16,86%	244,32%
2022	15,03%	2929,83%	17,22%	15,88%	236,77%
2023	3,38%	2933,87%	16,41%	14,61%	211,76%
2024	7,13%	2939,34%	16,24%	14,32%	200,11%

Source: IDX Statistical Data and Financial Statements, 2026 (processed) www.idx.co.id

Table 1. shows that over the past five years, the share price of companies in the manufacturing industry has fluctuated, in line with the existing research gap. The increase and decrease occurred in fundamental indicators such as Sales Growth, Company Size, and Debt Equity Ratio.

2. Literature Review And Hypothesis Development

The theoretical basis serves as a reference/framework for problem-solving. Researchers must present an in-depth review of theories related to the research. The theories described in this section include established theories such as agency theory, organizational theory, production theory, consumption theory, behavioral theory, and so on. Every research requires a theoretical basis that meets the principles of novelty and relevance. The principle of novelty relates to science and must be up-to-date and representative. The principle of relevance means presenting a theoretical basis that is closely related to the research problem.

This section also contains a tentative answer (hypothesis) to a problem or research paradigm. The tentative hypothesis is written based on relevant scientific knowledge/theory, empirical research (most recent, no more than 5 years old), and serves as a clear argumentative basis for examining the problem. The existence of tentative assumptions indicates that the objective of solving the problem being studied has not been answered or

has not been satisfactorily resolved. Hypothesis development should link the independent and dependent variables. References should be formatted in APA 7th style.

Signalling Theory

Signaling theory was developed by Spence (1973), stating that information provided by companies to external parties, especially investors, can serve as signals regarding the company's prospects. Signal theory is a signal in the form of information needed by investors to invest their capital in the Company. So there is a relationship between principal and agent that requires supervising the company so that performance and targets are achieved. Managers should pay attention to the use of debt to increase the company's value and give a positive signal to external parties. There is a relationship between managers and investors; therefore, this study uses signal theory (Yulimtinan and Atiningsih, 2021).

Trade Off Theory

Trade Off Theory is a capital structure theory that states that companies exchange the tax benefits of debt funding for problems posed by potential bankruptcy (Brigham and Houston, 2011). *Trade Off Theory* discusses the relationship between capital structure and company value. The essence of *the trade-off theory* in the capital structure is to balance the benefits and sacrifices that arise from the use of debt. *Trade-off theory* explains that companies seek to achieve an optimal capital structure by balancing the tax benefits of the use of debt and the bankruptcy costs that may arise from the debt. This theory emphasizes the importance of choosing a blend of debt and equity that can maximize the value of a company.

Price Book Value

Firm value reflects the amount a seller would receive if the company were sold (Susanti et al., 2020). It is commonly measured by the Price-to-Book Value (PBV) ratio, which compares a firm's market price per share to its book value per share. A low PBV indicates an undervalued stock, often attractive for long-term investment, while a high PBV suggests stronger market confidence (Akbar, 2021). However, a low PBV may also signal weak firm fundamentals; thus, PBV should be evaluated relative to industry peers for meaningful interpretation.

Sales Growth

Sales growth is an indicator of operational performance that shows a company's ability to increase revenue from its main business activities. This growth can come from an increase in sales volume, an increase in the selling price of products, or success in expanding the market. Sales growth is an indicator of operational performance that shows a company's ability to increase revenue from its main business activities. This growth can come from an increase in sales volume, an increase in the selling price of products, or success in expanding the market. High growth is usually a positive signal that the company is growing and successfully expanding the market. However, sales growth that is not accompanied by good cost control can result in decreased profitability. Several studies show a positive relationship between sales growth and company value, as increased revenue has the potential to increase the company's profits and stock attractiveness (Suaidah, 2020; Khan et al., 2024).

LN Size

Companies that grow large generally have better access to external financing, more resources for research and development, and stronger competitiveness due to economies of scale. From an investor's perspective, large companies are often considered more stable and have a lower risk of

bankruptcy than small companies. However, in some studies, it has been found that companies that are too large tend to be less efficient due to high organizational and bureaucratic complexity. According to (Akbar, 2021; Hung, 2021) Hidayat and Khotimah (2022)It is noted that company size affects profitability, but does not always have a significant impact on company value. Fajri et al., (2023) even concluded that there was no significant influence between company size and company value.

Debt to Equity Rasio

A high DER indicates a large use of debt, which can provide benefits in the form of tax savings (since debt interest is tax-deductible). This is in accordance with the principle in *trade-off theory*, which states that a company can increase in value by using debt as long as the tax benefit is greater than the bankruptcy costs and agency costs incurred. However, if the DER is too high, the company faces great financial risks and potentially loses the trust of investors because it is considered incapable of managing the debt burden properly. Research by Marthalova and Ngatno (2019) found that DER has a positive influence on company value, while Irawati et al. (2021) states the opposite. This difference reinforces the importance of further research.

Return On Equity

Return on Equity (ROE) is the ratio of net profit after tax to total equity. ROE is one of the main indicators that is often used in financial analysis because it directly describes the rate of return that shareholders receive from the capital they invest. A high ROE indicates that a company is able to manage its equity effectively and efficiently to create profits. Profitability such as ROE also often plays a role as a mediating variable. This means that profitability can bridge the relationship between the company's fundamental factors (such as *growth*, size, and capital structure) and the company's value. (Dang et al., 2021; Pustika, Hariyanto, and Safitri 2022) support this concept, and show that ROE can influence the relationship of strengthening or weakening the direct influence of independent variables on PBV.

3. Hypothesis Development

The Relationship Between *Sales Growth* and *Price Book Value*

Sales growth describes the company's ability to increase revenue from previous periods. High sales growth is a target for investors because it shows that the company has good prospects, strong competitiveness, and there is an opportunity to generate large profits in the future. Research by Suaidah (2020) shows that sales growth has a positive effect on company value. Thus, the higher the growth rate, the greater the confidence of the market and investors in the company's prospects, so that the company's value also increases.

H1: It is suspected *that Sales Growth* has a positive and significant effect on *Price to Book Value* (PBV)

The Relationship of the Influence of LN Size on *Price to Book Value* (PBV)

Company Size (LN Size) describes how large the total assets of a company are. Large companies tend to have easier market access and easier access to external funding, and large companies have a lower risk of bankruptcy. Research by (Pratama et al., 2019) found that company size has a significant positive effect on the projected value of the company with PBV in manufacturing companies. The research is in line with *the Signalling theory* which states that the size of a company can give a positive signal to investors regarding the company's prospects. Thus, the larger the Company's assets, the higher the market value provided by investors.

H2: It is suspected that Company Size (*LN Size*) has a positive and significant effect on *Price to Book Value*

The Relationship of Debt to Equity Ratio to Price to Book Value

A high DER indicates that the company is using a large amount of debt, while a low DER means that the company is relying more on its own capital. An optimal DER can provide benefits in the form of tax *savings (tax shield)* from debt interest that can increase the value of the company. The results of research by Subandi and Bagana (2024) show that DER has a significant effect on the value of companies in the manufacturing sector on the IDX. In the study, it was explained that investors will value high with an optimal capital structure, while a DER that is too high can reduce the value of the company if it is not managed optimally. Thus, the more optimal the management of DER, the greater the company's opportunity to increase PBV through investors.

H3: It is suspected that DER has a significant effect on PBV

The Relationship between the Effect *of Sales Growth* on *Price to Book Value* and *Return On Equity* as a Mediating Variable

Price to Book Value (PBV) is a valuation measure that shows how much the market values a company compared to its book value. Investors tend to highly value companies with high growth prospects and strong financial performance. As sales grow, the company demonstrates the ability to increase profits. Increased profits will increase ROE. A high ROE is a positive signal to investors that the company is being managed efficiently. This increases market confidence, increases demand for stocks, and has an impact on increasing stock prices, so that the PBV ratio increases.

H4: Return On Equity mediates a significant positive effect on the relationship between Sales Growth and Company Value

The relationship between the effect of LN Size on Price to Book Value and Return On Equity as a Mediation Variable

Return On Equity (ROE) plays an important role as a mediating variable that affects the relationship between LN Size and PBV. ROE shows the extent to which the Company can manage the company optimally to generate profits. Research Romansyah et al., (2021) shows that ROE affects the relationship of strengthening the effect of company size. Large companies that have a high ROE can manage assets more optimally and effectively and generate more profits.

H5: Return on Equity mediates a positive effect on the relationship between LN Size and the company's value

The relationship between the effect *of Debt To Equity Ratio* on *Price to Book Value* and *Return On Equity* as a Mediation Variable

When ROE rises, it indicates healthy and efficient financial performance, which can increase investor confidence. Effectively managed DERs can increase profits due to the leverage effect, which has an impact on increasing ROE. Investors view ROE as one of the key indicators of managerial performance. However, if the leverage is too high, the risk increases, and the effect on ROE can be negative. Therefore, this relationship is valid in the context of an optimal DER. Increased ROE can increase investor confidence and the Company's market value, thereby increasing PBV. Thus, ROE can play a role as a mediating variable in the relationship between DER and PBV.

H6: It is suspected *that Return On Equity* mediates a positive effect on the relationship between DER and PBV

4. Method

This study uses a quantitative research method. This study will use purposive sampling. The population for this study is *manufacturing* companies that *go public,* with a total of 103 companies. The determination of manufacturing industry companies as the object of research is based on the consideration that the number of companies in the industry is the largest compared to other types of companies listed on the Indonesia Stock Exchange (Sugiyono, 2018: 80) (Lutfi and Sunardi, 2019). From this population, 102 companies were purposively sampled. The sampling was based on the availability of data for the variables studied for five years, from 2020 to 2024, for a total of 102 companies. The data used is the data needed to measure *Return On Equity, Price Book Value, Sales Growth, LN Size, and Debt Equity Ratio.*

Operational Variables

This research consists of independent variables and dependent variables, including the following:

Table 2. Definition of Variable Operational

No	Name	Understanding	Benchmark
1	*Price Book Value* (PBV)	As a gauge indicator, the company's value has undergone many changes and developments.	$\frac{\text{Market price per share}}{\text{Book value per share}}$ (Arifin, 2023; Jaya and Kuswanto, 2021; Khakim and Yudiantoro, 2022; Fahrisal and Paranita, 2024)
2	*Return On Equity* (ROE)	In this study, profitability will be proxied by the *Return On Equity* (ROE) ratio. This ratio shows the amount of profit that investors will get. Profitability to be measured using ROE is a comparison between the amount of net profit after tax and the amount of capital that will generate profit.	$\frac{\text{Net Income}}{\text{Common Equity}}$ (Toumeh et al., 2021; Almagribi et al., n.d. ; Sari and Berliani, 2024)
3	*Growth*	Growth is an opportunity for a company to make investments in profitable things.	$\frac{\text{Total Assets t} - \text{Total Assets t} - 1}{Total\ Assets\ t - 1}$ (Fathoni and Syarifudin, 2021; Nuryatno and Adi, 2023)
4	LN *Size*	Company size describes the size of a company	LN total assets (Fathoni & Syarifudin, 2021)
5	*Debt Equity Ratio* (DER)	Measuring the company's ability to pay its long-term obligations.	$\frac{\text{Total Debt}}{Total\ Equity}$ (Alghifari, Solikin, et al., 2022; Son, Mangantar, and Untu 2021)

Source: Past Research Journals, 2026

Data Collection Techniques

Researchers need data in the form of annual reports published consecutively in the 2020-2024 period on www.idx.co.id, so the collection technique is called the documentation technique.

Data Analysis Techniques

Analysis techniques are a process of analyzing data that is expected to be able to provide useful information for researchers, as research needs that have been formulated for research, so that the data that has been collected can be processed and interpreted. The data that has been interpreted can make it easier for researchers and interested parties to understand the results of the research so that it is expected to be useful for important decision-making.

SmartPLS Analysis

The data analysis used in this study was carried out using SmartPLS version 4 software as a data processing aid. SmartPLS was used in this study because of the limited number of samples while the model built was quite complex. *Structural Equation Modeling* or SEM is used to solve research problems, this method is better when compared to other techniques.

Descriptive Statistical Analysis

The descriptive analysis carried out in this study aims to provide an overview of the variables in the study, namely *Return On Equity, Price Book Value, Firm Size, Sales growth, Debt Equity Ratio*, the description is in the form of min, max, standard deviation, and *average* values (Ghozali, 2011).

Measurement Model (Outer Model)

a. Validity Test

Validity testing is an important process in research that aims to ensure that the instrument used actually measures what it should measure. The validity test stage has several tests, including *convergent validity, discriminant validity,* and *average variance extracted* (AVE). If the test value is said to be valid, further testing can be carried out. The value of r calculated in the Corrected Item-Total Correlation column is compared to the value r of the table, with the degree of freedom (df) provision n-k, where n is the number of samples and k is the sum of independent variables. With the number of samples (n) and the significance level of 0.05, the r table in this study is: if r counts > r table, then the statement is valid; however, if r calculates ≤ r table, then the statement is invalid.

b. Reliability Test

A reliability test is a series of tests carried out to assess the reliability of the data collected. The reliability test describes the level of consistency of the measuring instrument used to measure research data. The reliability test is carried out through composite reliability, where the variable is concluded to be reliable if the resulting value has a value greater than 0.7.

Structural Model (Inner Model)

This test is used to predict the causality of the relationship between variables in the study, the structural model test in this study uses:

Coefficient of Determination (R2)

The coefficient of determination, often denoted as (R2), is a statistical measure used to assess how well a regression model explains the variability of the observed data. The value (R2) ranges from 0 to 1, where a higher value indicates that the model is better at explaining the variability of the data. In simple terms, (R2) shows the proportion of variance in the dependent variable that can be explained by the independent variable in the model. For example, if (R2) is 0.75, this means that 75 percent of the variability in the dependent variable can be explained by the independent variable in the model, while the remaining 25 percent is due to other factors not included in the model (Heni Rohaeni1, 2018).

Hypothesis Testing

Hypothesis testing in this study uses *structural equation* modeling analysis with the SmartPLS 4.0 program. In the SEM test, in addition to confirming the theory, it also describes whether there is a relationship between independent variables (Haryono and Wardoyo, 2008). The conclusion of the hypothesis test is seen from the coefficient path value obtained in the inner model test. If the tilapia-stat is greater than the tilapia-table of 1.96 (α 5%), then it is concluded that the hypothesis proposed in the study is accepted.

5. Results And Discussion

This section presents the results with clear descriptions. Results can be supplemented with tables, graphs (pictures), and/or charts. The discussion section describes the results of processing data or information, interpreting the findings logically, linking them to relevant reference sources, and the implications of the findings.

Description of Research Objects and Samples

The object used in this study is manufacturing companies that have gone *public* for the 2020-2024 period. The sample used in this study uses *purposive sampling* with the following criteria:

Table 3. Objects of Inquiry

No	Sample Description	Sum
1	Manufacturing companies that have gone *public* listed on the Indonesia Stock Exchange for the period of 2020-2024	102
2	Total number of samples used	102

Source: Processed data

Based on Table 4. of the sample calculation, it can be concluded that there are 102 companies used as research samples, so that the data processed in this study is 510 manufacturing companies in 5 years of research.

Data Analysis

Data analysis and model testing in this study with the help of SmartPLS 4.0, data analysis using two sub-models, namely outer loading measurement for validity test and reliability test, then inner model measurement used for quality test or hypothesis testing. Hypothesis testing between variables will later be carried out to determine the direct effect and indirect effect.

Descriptive Statistical Analysis of Variables

Descriptive statistical testing is used by the researcher and this study describes the variables present in the study. The table that will be presented contains a general overview of the data that has been carried out by the researcher. The following table shows the feed of descriptive statistical results processed using the SmartPLS 4.0 program.

Table 4. Descriptive Statistics

Variable	Mean	Median	Min	Max	Standard Deviation
GROWTH	0,1915	0,1978	2,1805	2,1177	0,9575
LNSize	0,0004	0,0743	2,7025	3,2757	0,9210
DER	0,1483	0,2261	2,4112	2,6937	1,0895
ROE	0,1414	0,1310	2,0630	1,6084	0,6704
PBV	0,1101	0,0342	-4,5083	2,8900	1,1954

Source: Data that has been processed.

The average value of the Growth variable of 0.1915 shows that in general the company experienced positive sales growth despite the high variation (SD = 0.9575). The LnSize value has an average of 0.0004 which indicates the size of the company is relatively variable with considerable deviations (SD = 0.9210). Meanwhile, DER has an average of 0.1483 with a standard deviation of 1.0895 which indicates that the difference in funding structure between companies is quite high. ROE has an average of 0.1414 which means that the company's profitability is moderate. The PBV has an average value of 0.1101 which indicates that the company's market value is slightly above its book value, indicating a diverse level of investor confidence.

Evaluation of Measurement Models (Outer Model)

In the *variables Growth, LN Size, Debt Equity Ratio, Return On Equity, Price Book Value.* The results of the outer loading indicator from variable X can be seen as follows:

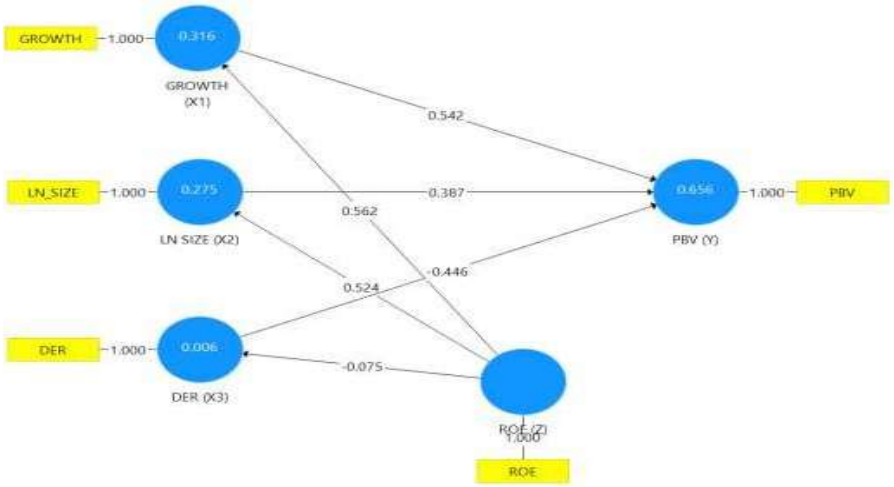

Figure 1. Outer Loading

Convergent Validity and Reliability

Table 5. Convergent Validity and Reliability *Results*

	Cronbach's Alpha	Rho-A	Composite Reliability	Average Variance Extracted (AVE)
Growth (X1)	1,000	1,000	1,000	1,000
LN Size (X2)	1,000	1,000	1,000	1,000
Debt to Equity Ratio (X3)	1,000	1,000	1,000	1,000
Price Book Value (Y)	1,000	1,000	1,000	1,000
Return On Equity (Z)	1,000	1,000	1,000	1,000

Source: Data processed using SmartPLS 4.0

In the *convergent validity table*, it can be seen *that the outer loading* and AVE models are said to be ideal if the outer loading value is more than 0.7. This means that the indicator used is valid in measuring the construct. An AVE value of more than 0.5 means that the construct can explain an average of at least 50 percent of the variants of the item.

The internal consistency reliability of a construct with reflective indicators can be done in two ways, namely by looking at *Cronbach's alpha value and composite reliability*. The variable is declared reliable if it has *a Cronbach's alpha* value of more than 0.7 and *a composite reliability value* of more than 0.7.

Discriminating Validity Test

Discriminant validity needs to be carried out to test the extent to which the construct of this study is completely different from other constructs according to empirical standards. The validity test in this study was measured by the Fornell-Larcker matrix and HTMT (*heterostraitmonotrait ratio of correlation*). *The Forrel-Larkcer* of a latent variable is judged to meet the validity of the discrimination if the root value of AVE Square (diagonal) is greater than all the values of those latent variables and the HTMT value is less than 1.

Table 6. Discriminant *Validity Results*

	Growth (X1)	*LN Size* (X2)	*Debt to Equity Ratio* (X2)	*Price Book Value* (Y)	*Return On Equity* (Z)
Growth (X1)	-0.152	1.000			
LN Size (X2)	0.030	-0.117	1.000		
Debt to Equity Ratio (X3)			1.000		
Price Book Value (Y)	-0.517	0.564	0.311	1.000	
Return On Equity (Z)	-0.075	0.562	0.524	0.626	1.000

Source: SmartPLS 4.0 processed data

Table 7. HTMT Results

Variable	**HTMT < 1**
Growth (X1)	Yes
LN Size (X2)	Yes
Debt to Equity Ratio (X3)	Yes
Price Book Value (Y)	Yes
Return On Equity (Z)	Yes

Source: SmartPLS 4.0 processed data

The above test results indicate that all variable indicators have outer loadings greater than 0.7 and HTMT values less than 1. This suggests that all indicators in the research variables are valid, and no indicators need to be removed.

Structural Model Analysis (Inner Model)

After the estimated model meets the *Outer Model criteria,* then structural model testing (*Inner model*) is carried out. Here is the *R-Square value* of the construct:

Table 8. R-Square Results

	R Square	**R-Square Adjusted**
Growth	0.316	0.310
LN Size	0.275	0.268
Debt to Equity Ratio	0.006	-0.003
Price Book Value	0.656	0.647

Source: SmartPLS 4.0 processed data

Based on the R-square output in the table above, it can be concluded that the structural (*inner model*) model in this study is said to be "strong". Interpretation of the R-square output, the dependent variable *Price Book Value* is obtained as 0.656. Thus, it can be said that the variables X1 (*Growth*), X2 (*LN Size*), and X3 (*Debt to Equity Ratio*) can explain Y (*Price book Value*) by 65.6 percent and the remaining 34.4 percent is explained by other variables other than those studied in this study.

Hypothesis Test

In conducting hypothesis testing in this study, a test is needed, namely the *Immediate effect*. Bootstrapping is a non-parametric procedure that tests the significance of various PLS SEM results such as path coefficient, Cronbach's Alpha value, HMTM, and R2.

Direct Effect

Direct effect testing aims to test the hypothesis of the influence of *Growth, LN Size, DER* on *Price Book Value* through *Return On Equity* as a mediating variable as several criteria to determine the measurement of *Direct Effect*:

a. *Path Coefficients,* if the Original value of the sample is positive then the relationship between the exogenous and endogenous variables is unidirectional, so that an exogenous variable increases, then the value in the endogenous variable will increase and vice versa.
b. *Path Coeffcients,* if the Orginal value of the sample is negative then the relationship between the exogenous variable and the endogenous variable is in the opposite direction, so if the value of an exogenous variable increases, then the value of the endogenous variable will decrease or in the opposite direction with the exogenous variable.
c. The relationship between the variables has a p-value of < 0.05 or a T-statistic > 2.001, then the relationship between the variables is significant. Similarly, if the P-value is > 0.05 or the T-statistic > 2.001, the relationship between the variables is insignificant.

Table 9. Direct *Effect Values*

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
GROWTH (X1) → PBV (Y)	0,542	0,550	0,061	8,919	0,000
LN SIZE (X2) → PBV (Y)	0,387	0,391	0,071	5,485	0,000
DER (X3) → PBV (Y)	-0,446	-0,445	0,049	9,133	0,000

Source: SmartPLS 4.0 processed data

a. The relationship between the variable X1 (Growth) and the variable Y (*Price Book Value*) has an original sample value of 0.542 which means that the relationship between the two variables is positive or unidirectional. The result of T-Statistic is 8.919 > 2.001 or P-Values 0.000 < 0.05 which means that the relationship between the two variables is significant and it can be concluded that X1 *Growth* has a significant effect on the Y variable.
b. The relationship between the variable X2 (*LN Size*) and the variable Y (*Price Book Value*) has an original sample value of 0.387 which means that the relationship between the two variables is positive or unidirectional. The result of T-Statistic is 5.485 > 2.001 or P-Values of 0.000 < 0.05 which means that the relationship between the two variables is significant and it can be concluded that X2 *LN Size* has a significant effect on the Y variable.
c. The relationship of the X3 variable (DER) to the variable Y (*Price Book Value*) has an original sample value of -0.446 which means that the relationship between the two variables is negative or non-directional. The result of T-Statistic is 9.113 > 2.001 or P-Values 0.000 < 0.05 which means that the relationship between the two variables is significant and it can be concluded that X3 *Debt to Equity Ratio* has a significant effect on variable Y. Thus the H3 Hypothesis is accepted.

Indirect Effect

Indirect analysis aims to test the hypothesis of the indirect influence of a variable that affects exogenous variables against endogenous variables mediated by mediation variables. The criteria for determining indirect influence are:

a. *Specific Indirect Effect*, if the original value of the sample is positive, then the relationship between the exogenous variable and the endogenous variable mediated through the mediation variable is unidirectional. So it can be concluded that if the value of an exogenous variable increases, the value of the endogenous variable mediated by the mediation variable also increases, and vice versa.
b. *Specific Indirect Effect*, if the original value of the sample is negative, then the relationship between exogenous variables and endogenous variables mediated through mediation variables is in the opposite direction. So it can be concluded that if the value of an exogenous variable increases, the value of the endogenous variable mediated through the mediation variable will decrease or be in the opposite direction to the exogenous variable.
c. If the relationship between variables has a P-value of < 0.05 or a T-statistic > 2.001, then the relationship between the variables is significant. Similarly, if the P-value is > 0.05 or the T-statistic < 2.001, then the relationship between the variables is insignificant.

Table 10. Indirect Effect Test Results

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ROE → GROWTH→ PBV	0,305	0,309	0,050	6,055	0,000
ROE→ LN SIZE→ PBV	0,203	0,202	0,052	3,922	0,000
DER→ LN SIZE→ PBV	0,033	0,033	0,044	0,749	0,227

Source: SmartPLS 4.0 processed data

a. The exogenous variable X1, namely *Growth* to *Price Book Value* through the mediated variable *Return on Equity*, has an original value of 0.305, which means that there is a relationship between the exogenous variable and the endogenous variable mediated by the mediating variable is positive or unidirectional. Meanwhile, the results of the T-statistical test were 6.055 > 2.001 or P-values 0.000 < 0.05 which means that the relationship between exogenous variables through mediation variables has a significant effect on endogenous variables. Thus the H4 hypothesis is accepted.
b. The exogenous variable X2, namely *LN Size* to *the Price Book Value* through the mediation variable, namely *Return On Equity* , has an original value of 0.203, which means that it has a relationship between the exogenous variable and the endogenous variable mediated by the mediation variable is positive or unidirectional. Meanwhile, the results of the T-statistic test were 3.922 > 2.001 or P-values 0.000 < 0.05 which means that the relationship between exogenous variables through mediation variables has a significant effect on endogenous variables. Thus the H5 hypothesis is accepted.
c. The exogenous variable X3, namely *the Debt to Equity Ratio* to *Price Book Value* through the mediation variable, namely *Return On Equity* , has an original value of 0.033, which means that it has a relationship between the exogenous variable and the endogenous variable mediated by the mediation variable, which is positive or unidirectional. Meanwhile, the results of the T-statistic test of 0.749 < 2.001 or P-values of 0.227 > 0.05 which means that the relationship between

exogenous variables through mediation variables does not have a significant effect on endogenous variables. Thus the H6 hypothesis is rejected.

DISCUSSION

The Effect of Growth on Price Book Value

The results of the *Growth* test on *Price Book Value* have an original value of 0.542 which means that the relationship between these two variables is positive and unidirectional. The *T-statsitic result* is 8.919 > 2.001 while the P-value result is 0.000 < 0.05 which has a significant positive meaning, the original value has a positive value so this states that the influence *of Growth* on *the Price Book Value* is accepted. The size of *Growth* greatly affects the Company's Value. Good Company Value if Sales Growth is high, the higher *Growth* the better the company's value. This is also strengthened by research conducted by Suaidah (2020) That *Growth* Affects Price *Book Value*

The Effect of LN Size on Price Book Value

The results of *the LN Size* test on *the Price Book Value* have an original value of 0.387 which means that these two variables have a positive and unidirectional influence. The result of T-statistic is 5.485 > 2.001 while the P-value is 0.000 < 0.05 which means that both variables have a significant effect. *LN Size* in this study has a significant positive influence. The larger the size of a company, the more sales and total assets will be. This is also reinforced by (Irawati et al. 2021). That *LN Size* has a positive influence on *Price Book Value.*

The Effect of Growth on Price Book Value through Return On Equity as a Mediation Variable

The results of the *Return On Equity test* mediated *Growth* on *Price Book Value* have an original value of 0.305, which means that the relationship between exogenous variables and endogenous variables mediated by mediation variables is positive or unidirectional. Meanwhile, the results of the T-statistical test were 6.055 > 2.001 or P-values of 0.000 < 0.05, which means that the relationship between exogenous variables through mediation variables has a significant effect on endogenous variables. Sales growth has an important role in working capital management. If it was bad before, then in the following year it can be analyzed and improved. Good sales growth can be seen through the level of profitability that a company obtains in a given period. Good sales growth shows that the company is developing well. By calculating the sales growth rate, the company can make projections in the future. Limbong and Chabachib (2016) prove that profitability is able to mediate sales growth to the Company's value. This is in line with research (Yulimtinan and Atiningsih, 2021).

The Effect of LN Size on Price Book Value through Return On Equity as a Mediation Variable

Results of testing *Return On Equity* mediation *LN Size* towards *Price Book Value* It has an original value of 0.203, which means that it has a relationship between exogenous variables and endogenous variables mediated by mediating variables is positive or unidirectional. Meanwhile, the results of the T-statistic test were 3.922 > 2.001 or P-values of 0.000 < 0.05 which means that the relationship between exogenous variables through mediation variables has a significant effect on endogenous variables. The results of this study are in line with the research of Pustika et al., (2022) which states that *Return on Equity* (ROE) is able to influence the relationship between company size (*Firm Size/LN Size*) to the company's value (PBV). In her research, Pustika found that ROE significantly mediates the influence of LN Size on PBV, so that the higher the company's profitability, the greater the influence of company size on increasing the company's market value.

The Effect of Debt to Equity Ratio on Price Book Value through Return On Equity as a Mediation Variable

Results of testing *Debt to Equity Ratio* mediation *Debt to Equity Ratio* towards *Price Book Value* It has an original value of 0.033 which means that it has a relationship between exogenous variables and endogenous variables mediated by a mediating variable is positive or unidirectional. Meanwhile, the results of the T-statistical test were 0.749 > 2.001 or P-values of 0.227 > 0.05 which means that the relationship between exogenous variables through mediation variables does not have a significant effect on endogenous variables. The results of this study are in line with the findings of Satriani et al., (2024) who researched coal sector companies on the Indonesia Stock Exchange for the 2020–2022 period. The study showed that ROE did not significantly mediate the relationship between DER and PBV, although the direction of the resulting relationship was positive. This means that a high level of company size does not necessarily increase the value of the company through profitability, as the company's ability to manage debt to generate profits is a major determining factor

6. Conclusion

Based on the results of data analysis and the discussion that has been explained in the previous chapter regarding the factors that determine financial performance in manufacturing companies in 2020-2024, the results can be concluded as follows:

1. The results of the study showed that *Growth* had a significant positive effect on the *Price Book Value* of Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that if the sales growth is high, the higher the sales growth, the better the company's value.
2. The results of the study showed that *LN Size* had a significant positive effect on the *Price Book Value* of Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that the larger the size of a company, the greater the sales and total assets.
3. The results of the study showed that *the Debt to Equity Ratio* had a significant negative effect on the *Price Book Value* of Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that the higher the level of debt owned by the company compared to its own capital, the company's value will also decrease.
4. The results of the study showed that *Growth* on *Price Book Value* with *Return On Equity* as a mediating variable has a positive and significant influence on Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that good sales growth shows that the company is developing well. By calculating the sales growth rate, the company can make projections in the future.
5. The results of the study showed that *LN Size* to *Price Book Value* with *Return On Equity* as a mediating variable has a positive and significant influence on Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that the larger the size of a company, the higher the company's ability to generate profits (ROE), which can ultimately increase the company's value in the eyes of investors.
6. The results of the study showed that *the Debt to Equity Ratio* to *Price Book Value* with *Return On Equity* as a mediating variable had a positive, but not significant, effect on Manufacturing Companies listed on the Indonesia Stock Exchange in 2020-2024. This means that increasing the debt-to-equity ratio has not been able to have a meaningful impact on increasing the company's value through profitability.

Suggestion

Based on the results of the study, manufacturing companies listed on the Indonesia Stock Exchange for the 2020–2024 period are advised to increase sales growth through market expansion, product innovation, and operational efficiency, because they have been proven to have a significant effect on increasing company value (PBV). Companies are also advised to pay attention to company size (LN Size) as a factor that increases the company's value through adding assets, expanding production capacity, and strengthening organizational structure to maintain financial stability and investor confidence. *The Debt to Equity Ratio (*DER) does not have a significant effect on the company's value, so companies need to be careful in determining the capital structure and adjusting the use of debt to the company. the ability to generate profits so as not to cause excessive financial burdens. In addition, profitability (ROE) has been proven to affect the influence of growth and company size on company value. Therefore, companies need to increase profitability through asset optimization and cost efficiency, while maintaining a balanced financing policy to avoid reducing the company's value.

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