Proceeding of International Conference on Business, Economics, Finance and Technology (PIC-BEFT)
Vol. 1, No. 1, 2024 : Hal 131-150

The Influence of Financial Performance, Sales Growth, and Investment Decisions on Firm Value with Capital Structure as an Intervening Variable in Manufacturing Companies in the Miscellaneous Industry Sector Listed on the Indonesia Stock Exchange from 2019 to 2022

Rini Theresia Manurung[1],Robinhot Gultom[2],Winarto[3]
Management Study, Program Faculty of Economics Methodist University of Indonesia
Corresponding Author : Rini Theresia Manurung rinimanurung08@gmai.com

ARTICLEINFO

Keywords: : Financial Performance, Sales Growth,Investment Decisions,Firm Value,Capital Structure.

Received : 14, September
Revised : 23, September
Accepted: 24, October

ABSTRACT

The purpose of this research is to obtain empirical evidence regarding the role of capital structure in intervening the effects of financial performance, sales growth, and investment decisions on firm value. The sample used in this study consists of manufacturing companies in the miscellaneous industry sector listed on the Indonesia Stock Exchange for the period 2019-2022, with 9 companies selected based on purposive sampling criteria. The software used for analysis is WarpPLS version 8.0. The results of the study indicate that financial performance has a positive and significant effect on firm value, while sales growth and investment decisions do not significantly affect firm value. Additionally, financial performance and investment decisions positively and significantly impact capital structure, whereas sales growth does not affect capital structure. Furthermore, capital structure is capable of intervening the effect of investment decisions on firm value, but it does not intervene the effects of financial performance and sales growth on firm value.

INTRODUCTION

Competition in the business world is highly competitive, with each sector facing its own challenges in ensuring the sustainability of companies, including the manufacturing sector. Manufacturing companies are strategic investment opportunities due to their rapid growth on the Indonesia Stock Exchange (IDX). Companies in the miscellaneous industry sector play a significant role in Indonesia's economy as part of the manufacturing landscape.

The miscellaneous industry sector in Indonesia has experienced rapid growth. This sector includes machinery and heavy equipment, automotive and components, textiles and garments, footwear, cables, and electronics, processing raw materials into finished or semi-finished products. The miscellaneous industry is a backbone of the manufacturing sector in Indonesia and is considered a national priority industry with significant potential for further development. This sector contributes significantly to economic growth, creating substantial job opportunities while also encouraging increased domestic and foreign investment.

Every company aims to enhance and provide prosperity for its shareholders. Additionally, companies seek to generate profits. To achieve these objectives, a crucial aspect that stakeholders focus on is increasing the firm’s value. An increase in firm value brings numerous positive impacts, including heightened creditor confidence in providing loans, increased investor interest in purchasing company shares, and improved competitiveness against rivals.

Firm value is an important aspect for both managers and investors. For investors, an increase in firm value reflects a positive perception of the company. Firm value serves as a key consideration for potential investors looking to invest their funds in a company. In the capital market, firm value will rise when accompanied by a high rate of return on investment for shareholders.

In this study, firm value is proxied by Price to Book Value (PBV). PBV is a ratio that measures a company's ability to create firm value in the form of stock price relative to the available capital. Price to Book Value (PBV) reflects the market value of a company in relation to its book value. A higher ratio indicates that the market has confidence in the company's prospects.

Many factors can influence firm value. In this study, the author will discuss financial performance proxied by Return on Assets (ROA), sales growth, and investment decisions proxied by Capital Expenditure to Book Value of Assets (CAPBVA).

Below, Figure 1.1 illustrates the financial phenomenon of manufacturing companies in the miscellaneous industry sector listed on the Indonesia Stock Exchange from 2019 to 2022:

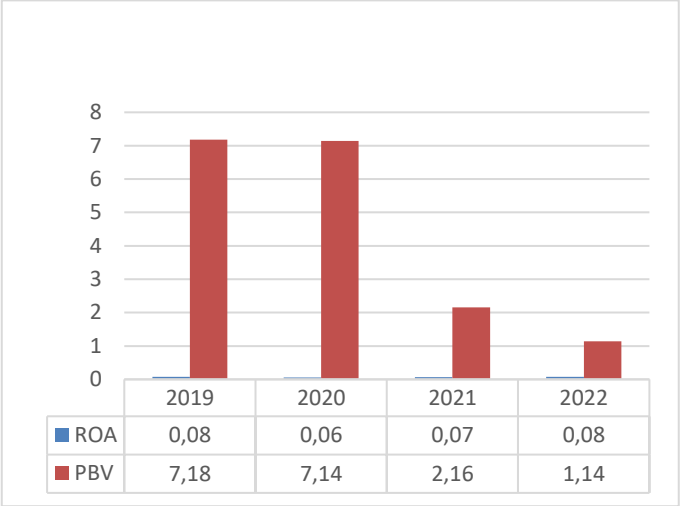

Figure 1. Average ROA and PBV of Manufacturing Companies in the Miscellaneous Industry Sector Listed on the IDX from 2019 to 2022

Based on Figure 1.1, it is evident that financial performance, proxied by Return on Assets (ROA), in manufacturing companies in the miscellaneous industry sector experienced fluctuations. From 2019 to 2020, there was a decrease of 0.02. This decline in the ROA ratio indicates that many companies faced unstable profits from sales and a decrease in total asset turnover. This decline suggests that companies became less effective in managing assets to generate profits. Various factors, such as economic uncertainty and changing growth prospects due to COVID-19, may have contributed to this situation. Subsequently, from 2020 to 2021, there was an increase of 0.01, and from 2021 to 2022, there was another increase of 0.01.

Meanwhile, firm value, proxied by Price to Book Value (PBV), has declined each year from 2019 to 2022. Stocks with a PBV ratio above 1 are considered overvalued, while those with a PBV ratio below 1 are deemed undervalued, indicating low firm value. Companies with a PBV ratio of less than 1 suggest that they have substantial debt, which reduces the profits available to the company as they are used to meet debt obligations. Based on the average PBV, manufacturing companies in the miscellaneous industry sector have a PBV of more than 1 (overvalued).

Based on the average ROA and PBV above, it should be expected that if ROA experiences a consistent increase or decrease, it would be followed by a consistent rise or fall in firm value. However, this phenomenon indicates that the relationship between investment decisions and firm value is inconsistent.

Based on the business phenomenon presented above, the influence of financial performance on firm value is not merely a direct relationship, but rather an indirect one. Therefore, it is essential to introduce an intervening variable to address the inconsistency in the effect of financial performance on firm value. In light of this issue, the researcher proposes capital structure as an intervening variable to mitigate the inconsistencies observed.

Research Objectives

The following are the research objectives, which are based on the problem's background:

1. To ascertain and examine how financial performance affects corporate value.
2. To ascertain and examine how capital structure is impacted by financial performance.
3. To determine and analyze whether capital structure can intervene in the effect of financial performance on firm value.
4. To determine and analyze the positive influence of sales growth on firm value.
5. To determine and analyze the positive influence of sales growth on capital structure.
6. To determine and analyze whether capital structure can intervene in the effect of sales growth on firm value.
7. To determine and analyze the positive influence of investment decisions on firm value.
8. To determine and analyze the positive influence of investment decisions on capital structure.
9. To determine and analyze whether capital structure can intervene in the effect of investment decisions on firm value
10. To determine and analyze the positive influence of capital structure on firm value.

Research Benefits

The benefits of this research are as follows:

1. For the Researcher

   This study enhances knowledge related to financial management, specifically regarding the influence of financial performance, sales growth, and investment decisions on firm value, with capital structure as an intervening variable in manufacturing companies in the miscellaneous industry sector listed on the Indonesia Stock Exchange.
2. For Investors

   This research serves as information that aids all parties in making decisions and analyzing financial performance, providing considerations for investors.
3. For Companies

   It can be used as input for the business environment in the industry to achieve profitability.
4. For Future Researchers

   This study is beneficial in providing information or serving as a reference for other researchers who wish to conduct further research.

LITERATURE REVIEW

Theoretical Framework

Signaling Theory

According to Brigham and Houston (2011:184), signaling theory explains management's perception of a company's future growth, which influences potential investors' responses to the firm. Information that demonstrates management's attempts to satisfy the owners' wishes makes up these signals. When making investment decisions, investors and business actors consider this information to be a crucial signal.

We will first interpret and analyze the information that the company communicates and that investors get in order to decide whether it is good news or bad news (Jogiyanto, 2010:54). Investors will react favorably and be able to differentiate between high-quality and low-quality companies if the information is seen favorably, which will raise stock prices and improve the firm's value. On the other hand, a negative signal from investors means that they are less eager to invest, which will hurt the firm's worth.

Hypothesis Development

The Influence of Financial Performance on Firm Value

Financial performance, measured by ROA, is theorized to have a positive relationship with firm value. Higher profitability leads to higher firm value, while lower profitability results in lower firm value. The better a company pays returns to its shareholders, the greater its firm value will be. Financial performance (ROA) significantly and positively affects firm value. This theory is supported by the research findings of Idris Hariany (2022), which state that financial performance influences firm value. Based on this explanation, the hypothesis developed by the researcher is as follows:

H1: Financial performance has a positive and significant effect on firm value

The Influence of Financial Performance on Capital Structure

Higher profitability in a company leads to a larger equity base, which subsequently affects the reduction of capital structure. This indicates that a company with a strong ability to generate profits tends to use retained earnings (equity) to finance its operational activities without relying on external funds. This finding is consistent with previous research by Jemani (2020), It asserts that capital structure is positively and significantly impacted by profitability. In light of this explanation, the researcher came up with the following hypothesis:

H2: Capital structure is positively and significantly impacted by financial performance.

The Influence of Financial Performance on Firm Value with Capital Structure as an Intervening Variable

Return on Assets (ROA) is crucial for management to evaluate the effectiveness and efficiency of the company in managing all its assets. A high

ROA indicates that a company can generate substantial profits, which can attract many investors to invest, ultimately impacting the increase in firm value. The firm's value may be further increased by the increased interest from investors. In light of this explanation, the researcher came up with the following hypothesis:
H3: Capital structure can intervene in the relationship between financial performance and firm value

The Influence of Sales Growth on Firm Value

Sales growth refers to the increase in sales this year compared to the previous year. An increase in sales is expected to lead to higher profits for the company. With increased profits, the stock price of the corporation is probably going to increase.

A company with high sales growth indicates strong development and performance. High sales growth reflects increased revenue, making it attractive for investors to invest, as stock prices are expected to continue rising. This theory is supported by the research findings of Alifatul (2022). In light of this explanation, the researcher came up with the following hypothesis:
H4: Sales growth has a positive and significant effect on firm value

The Influence of Sales Growth on Capital Structure

An increase in sales growth requires the company to seek additional capital to support that growth. On the other hand, creditors tend to view this sales growth as a consideration when providing loans. Therefore, companies with stable and increasing sales generally also have stable cash flows. Companies that are growing and have stable sales should ideally reinvest profits rather than distribute dividends, opting instead to raise capital through external funding for investment financing.

This statement aligns with the trade-off theory, which explains that if the benefits of using debt outweigh those of internal funds, the company should opt for external financing. In light of this explanation, the researcher came up with the following hypothesis:
H5: Sales growth has a positive and significant effect on capital structure

How Sales Growth Affects Firm Value with Capital Structure Acting as an Intervening Factor

When a company experiences an increase in sales, it does not necessarily indicate that profits will also rise; in some cases, profits may even decline. A decrease in profits can hinder the increase in firm value, as higher sales growth often leads to greater costs for the company. Thus, an increase in sales growth does not guarantee an accompanying rise in profits. This uncertainty may cause investors to hesitate in making further investments, which can have a minimal impact on firm value. This finding is supported by research conducted by Atiningsih and Wahyuni (2020), which states that capital structure can serve as an intervening variable in the relationship between sales growth and firm

value. In light of this explanation, the researcher came up with the following hypothesis:
H6: Capital structure can intervene in the relationship between sales growth and firm value

The Influence of Investment Decisions on Firm Value

Investment is a commitment of a certain amount of funds or other resources made in the present, with the aim of obtaining returns in the future. The goal of investment decisions is to achieve a high level of returns with a specific level of risk. Company growth is an important factor that shareholders expect, as it allows the company to provide the anticipated returns. Investors hope that company growth will consistently increase, along with the value of the company's assets, as this growth can lead to the desired profits through investment opportunities.

Based on the explanation above, it can be concluded that the better management is at deciding policies for utilizing the company's funds in an asset, the greater the potential to enhance firm value. This theory is supported by the research findings of Sari Hermuningsih (2022). In light of this explanation, the researcher came up with the following hypothesis:
H7: Investment decisions have a significant effect on firm value

The Influence of Investment Decisions on Capital Structure

The increase in investment decisions, along with the rise in stock value and earnings per share, indicates favorable company conditions, which in turn attracts the attention of potential creditors. As creditor interest in the company increases, it becomes easier for management to secure loans, thereby raising the level of debt. This finding aligns with signaling theory, which states that users of financial reports will respond to the actions taken by a company to enhance profitability. This result is also supported by research conducted by Yulianto Helmi (2018), which indicates that investment decisions have a positive and significant effect on capital structure. In light of this explanation, the researcher came up with the following hypothesis:
H8: Investment decisions have a positive and significant effect on capital structure

The Influence of Investment Decisions on Firm Value with Capital Structure as an Intervening Variable

Companies with high asset growth are encouraged to continue expanding. By managing the level of external capital used, the risks that arise can be controlled, which in turn attracts investor interest. This finding is supported by research conducted by Yulianto Helmi (2018), which states that capital structure can serve as an intervening variable in the relationship between asset growth and firm value. In light of this explanation, the researcher came up with the following hypothesis:

H9: Capital structure can intervene in the relationship between investment decisions and firm value

The Influence of Capital Structure on Firm Value

A higher Debt-to-Equity Ratio (DER) indicates a greater impact on the company. A significant amount of capital can help mitigate losses in a company's operational activities. Additionally, signaling theory provides positive signals to investors regarding the company's return capabilities, indicating that the company has optimized its use of financing from both debt and equity. This finding is supported by research conducted by Yulianto Helmi (2018), which states that capital structure influences firm value. In light of this explanation, the researcher came up with the following hypothesis:
H10: Capital structure has a positive and significant effect on firm value

METHODOLOGY

Research Sample Data

The sample in this study consists of manufacturing companies in the diverse industries sector listed on the Indonesia Stock Exchange from 2019 to 2022. The purposive sampling technique was used with the following criteria: 1) All manufacturing companies in the diverse industries sector registered on the Indonesia Stock Exchange during the period of 2019-2022; 2) Manufacturing companies in the diverse industries sector that consistently published their financial reports during the period of 2019-2022; 3) Manufacturing companies in the diverse industries sector that did not incur losses during the period of 2019-2022. Based on these criteria, the research sample consists of 9 companies, resulting in a total of 36 observations (number of samples multiplied by the number of time periods). The data is in the form of panel data, which combines time series data (time periods) and cross-sectional data (companies).

Variable Measurement

Dependent Variable

In this research, the dependent variable is firm value. This variable is measured based on market value, specifically using the Price to Book Value (PBV) as defined by Melisa and Pranaditya (2019:45). PBV is the computation or comparison between the market value and the book value of a share, used to determine a stock's value by comparing the stock price per share to the book value per share. Mathematically, it can be expressed as follows:

$$\text{PBV} = \frac{\text{Price per Share}}{\text{Book Value per Share}}$$

Intervening Variable

The intervening variable proposed in this study is capital structure, proxied by the Debt to Equity Ratio (DER). The Debt to Equity Ratio is a ratio used to measure the proportion of debt relative to equity. This ratio is useful for understanding the comparison between the funds provided by creditors and the funds from the company's owners (Hery, 2018:168)

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

Independent Variables

The independent variables in this study are financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA). **Return on Assets (ROA)** is a ratio that indicates the return generated from the total assets used in the company (Kasmir, 2019:203)

ROA = $\frac{\text{Net Income}}{\text{Total Assets}}$

Sales Growth (SG) represents the change in sales reported in the financial statements year-over-year (Silviana, 2016:35)

SG = $\frac{\text{Sales (t)} - \text{Sales (t-1)}}{\text{Sales(t-1)}}$

Investment Decisions are the most crucial among various decisions, as they involve long-term commitments to invest in one or more assets, whether real assets or financial assets, to generate future profits (Kusaendri, 2022:4)

CAP/BVA= $\frac{\text{Additional Fixed Assets in one year}}{\text{Total Assets}}$

Analysis Model

The data analysis in this study employs SEM-PLS (Structural Equation Modeling - Partial Least Squares) using the WarpPLS 8.0 software. Referring to the empirical model of this research, the mathematical models can be structured as follows:

$DER_{it} = \alpha_1 + \beta_1 ROA_{it} + \beta_2 SG_{it} + \beta_3 PER_{it} + e$ ..... (1)

$PBV_{it} = \alpha_2 + \beta_2 ROA_{it} + \beta_3 SG_{it} + \beta_4 PER_{it} + \beta_5 DER_{it} + e_2$ ..... (2)

EMPIRICAL RESULTS

The data analysis conducted using SEM-PLS, as previously explained, gives the findings of the goodness of fit (GoF), as displayed in Table 1 below:

Table 1. Goodness of Fit of Structural Model

Kriteria	Parameter	*Rule of Thumb*	Simpulan
Average path coefficient (APC)	P<0.001	*Acceptable* P < 0.05	Accepted
Average R-squared (ARS)	P<0.001	*Acceptable* P < 0.05	Accepted
Average Adjusted R-squared (AARS)	P<0.001	*Acceptable* P < 0.05	Accepted
Average block VIF (AVIF)	1.204	*Acceptable if* ≤ 5, i*deally* ≤ 3.3	Accepted, ideal
Average full collinearity VIF (AFVIF)	1.380	*Acceptable if* ≤ 5, i*deally* ≤ 3.3	Accepted, ideal
Tenenhaus GoF (GoF)	0.686	*Small* ≥ 0.1, *medium* ≥ 0.25, l*arge* ≥ 0.36	Accepted, large

Symson's paradox ratio (SPR)	0.857	*Acceptable* if ≥ 0.7, i*deally* = 1	Accepted
R-squared contribution ratio (RSCR)	0.956	*Acceptable if* ≥ 0.9, i*deally* = 1	Accepted
Stastical Suppression Ratio (SSR)	1000	*Acceptable if* ≥ 0.7	Accepted
Nonlinear bivariat causality direction ratio (NLBCDR)	0.786	*Acceptable if* >= 0.7	Accepted

Based on the GoF results presented in Table 1, the model in this study demonstrates a very good fit. Additionally, issues related to multicollinearity among indicators and between exogenous variables were not found, as evidenced by the AVIF and AFVIF values being below 3.3. Similarly, the values for SPR, RSCR, and SSR are ideal, while the NLBCDR value remains above 0.7, indicating no causal issues within the model (Latan and Ghozali, 2017). Next, the hypothesis testing that has been developed can be observed in the following Figure 2:

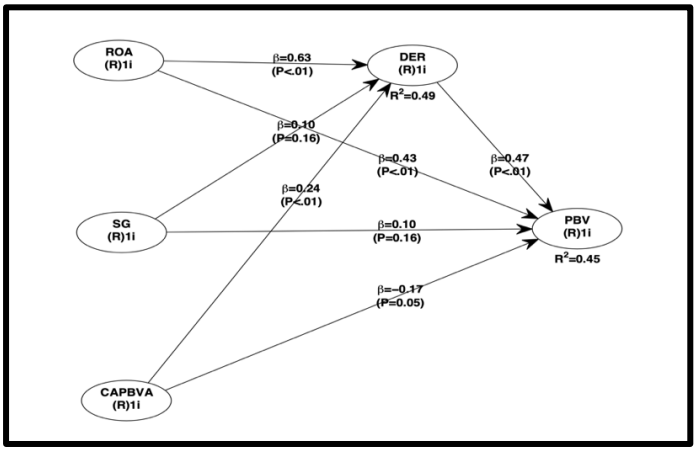

Figure 2. Testing Model

Next, to see the estimation results of the relationships between constructs, as well as the magnitude of variance and effect size, please refer to tables 2 and 3 below:

Table 2. Full Collinearity VIF, Adjusted R-Squared, and Q-Squared Test

	ROA	SG	CAPBVA	PBV	DER
Full coll. VIF	1.511	1.117	1.269	1.550	1.454
Adj. R-squared				0.485	0.447
Q-squared				0.375	0.407

Table 3. Effect Size and VIF Test

Description Path	*Effect Size*	VIF
ROA → PBV	0.361	1.049
SG → PBV	0.025	1.184
CAPBVA → PBV	0.014	1.106

ROA → DER	0.387	1.358
SG → DER	0.031	1.575
CAPBV → DER	0.076	1.200
DER → PBV	0.260	1.204

The effect size for the financial performance variable (ROA) on the firm value (PBV) is 0.361 (≥ 0.35), indicating a strong effect size. Next, the effect size for the sales growth variable on firm value (PBV) shows a value of 0.025 (≥ 0.02), categorizing it as weak. This indicates that the financial performance (ROA) and sales growth variables do not play a significant role in influencing firm value (PBV). Additionally, the effect size for the investment decision variable (CAPBVA) on firm value (PBV) is 0.014, which is also classified as weak.

The effect size for the financial performance variable (ROA) on the capital structure (DER) indicates a strong influence, with a value of 0.387 (≥ 0.35). This suggests that financial performance (ROA) plays a significant role in determining capital structure (DER).Next, the effect size for the sales growth variable (SG) on capital structure (DER) is 0.031, categorizing it as weak and indicating it does not have a significant impact. Similarly, the effect size for the investment decision variable (CAPBVA) on capital structure (DER) is 0.076, also classified as weak and not playing an important role.Furthermore, the effect size for the capital structure (DER) on firm value (PBV) is 0.260 (≥ 0.35), indicating a moderate influence. This suggests that capital structure (DER) plays a relatively important role in affecting firm value (PBV).

From the output of the Variance Inflation Factors (VIF) for all the variables in this study, all values are below 3.3. This indicates that all variables meet the criteria, signifying that there are no issues with vertical multicollinearity in the model.

The estimation results of the relationships between constructs indicate that financial performance (ROA) enhances business worth as determined by Price to Book worth (PBV). This is supported by the test results showing a positive and significant path coefficient with a p-value < 0.01, thereby confirming the hypothesis. Strong profitability demonstrates the company's ability to generate earnings, and a high level of profitability sends a positive signal that attracts investors to invest in the company. As more investors invest, the firm's value increases. This finding aligns with previous research by Yanti and Darmayanti (2019), which stated that profitability positively and significantly affects firm value.

The estimation results of the relationships between constructs indicate that financial performance (ROA) positively affects capital structure, measured by the Debt to Equity Ratio (DER). This is supported by the test results in Table 4.4 and Figure 4.1, which show a positive and significant path coefficient with a p-value

< 0.01, thereby confirming the hypothesis. This finding aligns with Riyanto's theory (2016:296), which states that as risk increases, shareholders demand higher returns in the form of a greater required rate of return. This leads to an increase in the cost of equity. Similarly, creditors respond to rising risk by increasing interest rates, resulting in higher debt costs. The combined effect of rising costs of equity and debt contributes to an increase in the weighted average cost of capital.

These results are in line with Jemani's (2020) earlier research, which showed that capital structure is positively and significantly impacted by effectiveness.

The estimation results of the relationships between constructs indicate that capital structure can intervene in the relationship between financial performance and firm value. However, as seen in Figures 4.1 and 4.2, capital structure does not yet effectively intervene in a partial manner regarding the influence of financial performance on firm value. Profitability is a significant factor affecting firm value, as the opportunity for high growth will continuously drive the company to expand by increasing capital.

These results are in line with earlier research by Listyani et al. (2022), which found that the link between business valuation and profitability has not yet been successfully impacted by capital structure.

Price to book value (PBV), a measure of firm worth, is positively impacted by sales growth (SG), according to the estimation results of the interactions between components. However, this was not supported by the test results in Table 4.4 and Figure 4.1, which showed that the path coefficient is positive but not significant (p-value > 0.1), thus not supporting the hypothesis. This suggests that manufacturing companies in the diversified industrial sector have stable and generally increasing sales levels. However, significant sales growth does not always lead to an increase in firm value. As sales grow, companies may incur more debt and fail to manage it effectively, which can hinder their ability to enhance firm value. Additionally, these manufacturing companies face considerable competition, particularly in the food and beverage sector, which plays a significant role in the economy and national export value. These findings align with previous research by Ayu (2022), which stated that sales growth does not significantly affect firm value.

The estimation results of the relationships between constructs indicate that sales growth (SG) has a positive effect on capital structure, measured by the Debt to Equity Ratio (DER). However, this was not supported by the test results in Table 4.4 and Figure 4.1, which showed that the path coefficient is positive but not significant (p-value > 0.1), thus not supporting the hypothesis. When a company strives to increase its sales, it requires additional capital to meet the sales volume. As sales rise, the costs incurred can be minimized, particularly by reducing reliance on long-term debt.

The estimation results of the relationships between constructs indicate that capital structure can mediate the impact of financial performance on firm value.

However, analysis of Figures 4.1 and 4.2 shows that capital structure has not yet been able to mediate the effect of financial performance on firm value. Furthermore, the results in Table 4.4 and Figure 4.1 indicate that capital structure does not effectively mediate the relationship between sales growth and firm value. Indirectly, capital structure does not have a significant impact in mediating the influence of sales growth on firm value.

The estimation results of the relationships between constructs indicate that investment decisions (CAPBVA) have a positive impact on firm value, as measured by price to book value (PBV). However, this was not supported by the results shown in Table 4.4 and Figure 4.1, which reveal a negative and significant path coefficient with a p-value <0.1, thus contradicting the hypothesis. The signaling theory suggests that investment expenditures provide positive signals about future company growth, potentially enhancing the perception of firm value. In this study, however, investment decisions led to a decline in firm value. This is because, while the signals from the company attract investors to invest, the subsequent results show a decrease in asset growth.

This result supports the findings of Dewi and Wirasedana's (2018) study, which found no discernible impact of investment choices on business value.

The estimation results of the relationships between constructs indicate that investment decisions (CAPBVA) positively affect firm value, measured by the Debt to Equity Ratio (DER). This was confirmed by the test results shown in Table 4.4 and Figure 4.1, which indicate a positive and significant path coefficient with a p-value <0.01, thus supporting the hypothesis. Investment decisions are measured using the Capital Expenditure to Book Value of Assets Ratio (CAPBVA), which assesses the amount of capital flow utilized by the company to acquire its fixed assets. Future growth in the company's investments will enhance its performance, leading to an increase in the company's stock price. A higher stock price will result in greater profits for investors. This finding is also supported by research conducted by Yulianto Helmi (2018), which states that investment decisions have a positive and significant impact on capital structure.

The estimation results of the relationships between constructs indicate that capital structure can intervene in the investment decisions affecting firm value. As seen in Figures 4.1 and 4.2, capital structure is able to partially intervene in the effect of financial performance on firm value. Indirectly, capital structure has a significant impact in intervening the influence of investment decisions on firm value. This is because companies with high asset growth are encouraged to continue expanding while maintaining control over the amount of foreign capital used, allowing risks to be managed effectively. This can attract investor interest. This finding is supported by research conducted by Yulianto Helmi (2018), which states that capital structure can serve as an intervening variable in the effect of asset growth on firm value.

The estimation results of the relationships between constructs indicate that capital structure, measured by the Debt to Equity Ratio (DER), has a positive effect on firm value, measured by the Price to Book Value (PBV). This is confirmed by the test results in Table 4.4 and Figure 4.1, which show that the path coefficient is positive and significant with a p-value <0.01, supporting the hypothesis. This can be explained by Trade-off Theory, which suggests that the benefits of increasing debt outweigh the sacrifices made, thereby directly enhancing the company's value. The increase in firm value due to the rise in debt (as long as it remains below its optimal level) is attributed to management's use of debt for business expansion. This finding aligns with prior research by Jemani (2020), which states that capital structure has a positive and significant impact on firm value.

Hypothesis testing 3 will follow this two-step approach: First, we will estimate the direct effect of the exogenous variables—financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA)—on the endogenous variable, firm value, represented as path c. Once this step is completed, we will obtain the estimation results for the direct effect, and then estimate the indirect effects simultaneously using the triangle model of PLS SEM, which involves paths X → Y (path c"), X → M (path a"), and M → Y (path b). The results of the indirect effect for the model X → Y (path c") concerning financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA) on firm value (PBV) can be seen in Table 4.4. Subsequently, the results for the model X → M (path a) and M → Y (path b) will also be detailed for financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA).

Table 3. Effect Size and VIF Test

Description Path	*Effect Size*	VIF
ROA → PBV	0.361	1.049
SG → PBV	0.025	1.184
CAPBVA → PBV	0.014	1.106
ROA → DER	0.387	1.358
SG → DER	0.031	1.575
CAPBV → DER	0.076	1.200
DER → PBV	0.260	1.204

The effect size for the financial performance variable (ROA) on the firm value (PBV) is 0.361 (≥ 0.35), indicating a strong effect size. Next, the effect size for the sales growth variable on firm value (PBV) shows a value of 0.025 (≥ 0.02), categorizing it as weak. This indicates that the financial performance (ROA) and sales growth variables do not play a significant role in influencing firm value (PBV). Additionally, the effect size for the investment decision variable (CAPBVA) on firm value (PBV) is 0.014, which is also classified as weak.

The effect size for the financial performance variable (ROA) on the capital structure (DER) indicates a strong influence, with a value of 0.387 (≥ 0.35). This suggests that financial performance (ROA) plays a significant role in determining capital structure (DER).Next, the effect size for the sales growth

variable (SG) on capital structure (DER) is 0.031, categorizing it as weak and indicating it does not have a significant impact. Similarly, the effect size for the investment decision variable (CAPBVA) on capital structure (DER) is 0.076, also classified as weak and not playing an important role.Furthermore, the effect size for the capital structure (DER) on firm value (PBV) is 0.260 (≥ 0.35), indicating a moderate influence. This suggests that capital structure (DER) plays a relatively important role in affecting firm value (PBV).

From the output of the Variance Inflation Factors (VIF) for all the variables in this study, all values are below 3.3. This indicates that all variables meet the criteria, signifying that there are no issues with vertical multicollinearity in the model.

The estimation results of the relationships between constructs indicate that financial performance (ROA) enhances business worth as determined by Price to Book worth (PBV). This is supported by the test results showing a positive and significant path coefficient with a p-value < 0.01, thereby confirming the hypothesis. Strong profitability demonstrates the company's ability to generate earnings, and a high level of profitability sends a positive signal that attracts investors to invest in the company. As more investors invest, the firm's value increases. This finding aligns with previous research by Yanti and Darmayanti (2019), which stated that profitability positively and significantly affects firm value.

The estimation results of the relationships between constructs indicate that financial performance (ROA) positively affects capital structure, measured by the Debt to Equity Ratio (DER). This is supported by the test results in Table 4.4 and Figure 4.1, which show a positive and significant path coefficient with a p-value < 0.01, thereby confirming the hypothesis. This finding aligns with Riyanto's theory (2016:296), which states that as risk increases, shareholders demand higher returns in the form of a greater required rate of return. This leads to an increase in the cost of equity. Similarly, creditors respond to rising risk by increasing interest rates, resulting in higher debt costs. The combined effect of rising costs of equity and debt contributes to an increase in the weighted average cost of capital.

These results are in line with Jemani's (2020) earlier research, which showed that capital structure is positively and significantly impacted by effectiveness.

The estimation results of the relationships between constructs indicate that capital structure can intervene in the relationship between financial performance and firm value. However, as seen in Figures 4.1 and 4.2, capital structure does not yet effectively intervene in a partial manner regarding the influence of financial performance on firm value. Profitability is a significant factor affecting firm value, as the opportunity for high growth will continuously drive the company to expand by increasing capital.These results are in line with earlier research by Listyani et al. (2022), which found that the

link between business valuation and profitability has not yet been successfully impacted by capital structure.

Price to book value (PBV), a measure of firm worth, is positively impacted by sales growth (SG), according to the estimation results of the interactions between components. However, this was not supported by the test results in Table 4.4 and Figure 4.1, which showed that the path coefficient is positive but not significant (p-value > 0.1), thus not supporting the hypothesis. This suggests that manufacturing companies in the diversified industrial sector have stable and generally increasing sales levels. However, significant sales growth does not always lead to an increase in firm value. As sales grow, companies may incur more debt and fail to manage it effectively, which can hinder their ability to enhance firm value. Additionally, these manufacturing companies face considerable competition, particularly in the food and beverage sector, which plays a significant role in the economy and national export value. These findings align with previous research by Ayu (2022), which stated that sales growth does not significantly affect firm value.

The estimation results of the relationships between constructs indicate that sales growth (SG) has a positive effect on capital structure, measured by the Debt to Equity Ratio (DER). However, this was not supported by the test results in Table 4.4 and Figure 4.1, which showed that the path coefficient is positive but not significant (p-value > 0.1), thus not supporting the hypothesis. When a company strives to increase its sales, it requires additional capital to meet the sales volume. As sales rise, the costs incurred can be minimized, particularly by reducing reliance on long-term debt.

The estimation results of the relationships between constructs indicate that capital structure can mediate the impact of financial performance on firm value. However, analysis of Figures 4.1 and 4.2 shows that capital structure has not yet been able to mediate the effect of financial performance on firm value. Furthermore, the results in Table 4.4 and Figure 4.1 indicate that capital structure does not effectively mediate the relationship between sales growth and firm value. Indirectly, capital structure does not have a significant impact in mediating the influence of sales growth on firm value.

The estimation results of the relationships between constructs indicate that investment decisions (CAPBVA) have a positive impact on firm value, as measured by price to book value (PBV). However, this was not supported by the results shown in Table 4.4 and Figure 4.1, which reveal a negative and significant path coefficient with a p-value <0.1, thus contradicting the hypothesis. The signaling theory suggests that investment expenditures provide positive signals about future company growth, potentially enhancing the perception of firm value. In this study, however, investment decisions led to a decline in firm value. This is because, while the signals from the company attract investors to invest, the subsequent results show a decrease in asset growth.This result supports the findings of Dewi and Wirasedana's (2018) study, which found no discernible impact of investment choices on business value.

The estimation results of the relationships between constructs indicate that investment decisions (CAPBVA) positively affect firm value, measured by the Debt to Equity Ratio (DER). This was confirmed by the test results shown in Table 4.4 and Figure 4.1, which indicate a positive and significant path coefficient with a p-value <0.01, thus supporting the hypothesis. Investment decisions are measured using the Capital Expenditure to Book Value of Assets Ratio (CAPBVA), which assesses the amount of capital flow utilized by the company to acquire its fixed assets. Future growth in the company's investments will enhance its performance, leading to an increase in the company's stock price. A higher stock price will result in greater profits for investors. This finding is also supported by research conducted by Yulianto Helmi (2018), which states that investment decisions have a positive and significant impact on capital structure.

The estimation results of the relationships between constructs indicate that capital structure can intervene in the investment decisions affecting firm value. As seen in Figures 4.1 and 4.2, capital structure is able to partially intervene in the effect of financial performance on firm value. Indirectly, capital structure has a significant impact in intervening the influence of investment decisions on firm value. This is because companies with high asset growth are encouraged to continue expanding while maintaining control over the amount of foreign capital used, allowing risks to be managed effectively. This can attract investor interest. This finding is supported by research conducted by Yulianto Helmi (2018), which states that capital structure can serve as an intervening variable in the effect of asset growth on firm value.

The estimation results of the relationships between constructs indicate that capital structure, measured by the Debt to Equity Ratio (DER), has a positive effect on firm value, measured by the Price to Book Value (PBV). This is confirmed by the test results in Table 4.4 and Figure 4.1, which show that the path coefficient is positive and significant with a p-value <0.01, supporting the hypothesis. This can be explained by Trade-off Theory, which suggests that the benefits of increasing debt outweigh the sacrifices made, thereby directly enhancing the company's value. The increase in firm value due to the rise in debt (as long as it remains below its optimal level) is attributed to management's use of debt for business expansion. This finding aligns with prior research by Jemani (2020), which states that capital structure has a positive and significant impact on firm value.

Hypothesis testing 3 will follow this two-step approach: First, we will estimate the direct effect of the exogenous variables—financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA)—on the endogenous variable, firm value, represented as path c. Once this step is completed, we will obtain the estimation results for the direct effect, and then estimate the indirect effects simultaneously using the triangle model of PLS SEM, which involves paths X → Y (path c”), X → M (path a”), and M → Y (path b). The results of the indirect effect for the model X → Y (path c”) concerning

financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA) on firm value (PBV) can be seen in Table 4.4. Subsequently, the results for the model X → M (path a) and M → Y (path b) will also be detailed for financial performance (ROA), sales growth (SG), and investment decisions (CAPBVA).

CONCLUSION

1. Financial performance is a factor that significantly influences the value of companies in the manufacturing sector of various industries listed on the Indonesia Stock Exchange during the period of 2019-2022. This indicates that good profitability reflects a company's ability to generate profit. A positive signal from high profitability attracts investors to invest in the company. The more investors that invest, the higher the company's value will be.
2. Financial performance significantly affects the capital structure of manufacturing companies in the diverse industries sector listed on the Indonesia Stock Exchange during the period of 2019-2022. This results in an increase in the cost of equity capital. This situation will also be followed by creditors. An increasing debt ratio means lower solvency levels, which reduces the guarantees for creditors. In balance with the increased risk, creditors also raise the required interest rates.
3. The capital structure is suspected to be unable to partially mediate the effect of financial performance on firm value. Profitability is one of the factors influencing firm value. This is due to the opportunities for achieving high growth, which will continuously encourage the company to expand by increasing its capital.
4. Sales growth is a factor that does not significantly influence the value of companies in the manufacturing sector of various industries listed on the Indonesia Stock Exchange during the period of 2019-2022. This shows that manufacturing companies in this sector have stable sales levels that tend to increase. However, significant sales growth does not always correlate with an increase in firm value, as higher sales growth can lead to more debt, and if the company cannot manage its debt well, it may not increase its value.
5. Sales growth does not significantly affect the capital structure of manufacturing companies in the diverse industries sector listed on the Indonesia Stock Exchange during the period of 2019-2022. When companies attempt to increase their sales, they will require additional capital to meet their sales targets. As company sales increase, expenses can be minimized by reducing reliance on long-term debt.
6. The capital structure is suspected to be unable to partially mediate the effect of sales growth on firm value. Indirectly, the capital structure does not have a significant impact on mediating the effect of sales growth on firm value.
7. Investment decisions significantly influence the value of companies in the manufacturing sector of various industries listed on the Indonesia Stock Exchange during the period of 2019-2022. This is because the signals

provided by the company remain attractive to investors for investing in that company. However, results in the future may show a decline in asset growth.

8. Investment decisions significantly affect the capital structure of manufacturing companies in the diverse industries sector listed on the Indonesia Stock Exchange during the period of 2019-2022. Investment decisions are measured by the Capital Expenditure to Book Value of Asset Ratio (CAPBVA), which assesses the amount of capital flow used by the company to acquire its fixed assets. CAPBVA provides information about how much additional capital flow the company has. The company can utilize this information to understand how much additional investment in productive assets it can make, thereby increasing its growth potential.
9. The capital structure is suspected to be able to partially mediate the effect of investment decisions on firm value. This is because companies with high asset growth will encourage continuous expansion. Companies must control the amount of foreign capital used to manage the arising risks, thereby attracting investor interest.
10. Investment decisions significantly influence the value of companies in the manufacturing sector of various industries listed on the Indonesia Stock Exchange during the period of 2019-2022. This is explained by the Trade-off Theory, where the benefits of increasing debt outweigh the sacrifices made, thus directly enhancing firm value. The increase in firm value due to the rise in debt (which remains below its optimal level) results from management utilizing that debt for business expansion.

REFERENCES

Aslindar, D. A., & Lestari, U. P. (2020). Pengaruh profitabilitas, likuiditas dan peluang pertumbuhan terhadap nilai perusahaan dengan struktur modal sebagai variabel intervening. *Dinamika Akuntansi Keuangan dan Perbankan*, 9(1), 91-106.

Atiningsih, S., & Wahyuni, A. N. (2020). Pengaruh Firm Size, Sales Growth, Struktur Aset, Dan Profitabilitas Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Intervening (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia (Bei) Periode 2012–2017). *Jurnal Stie Semarang* (Edisi Elektronik), 12(1), 47-68.

Ayu, F., Sukomo, S., & Sari, P. (2022). Pengaruh Profitabilitas Dan Pertumbuhan Penjualan Terhadap Struktur Modal Emiten (Suatu Studi Pada Pt. Indofood Sukses Makmur Tbk Yang Terdaftar Pada Bursa Efek Indonesia Periode Tahun 2011-2020).

Boen, O., & Sudirgo, T. (2023). Pengaruh Profitabilitas, Likuiditas Dan Struktur Modal Terhadap Nilai Perusahaan Tahun 2017-2019. *Jurnal Paradigma Akuntansi*, 5(1), 321-329.

Brigham, E. F., dan J. F. Houston. 2011. *Manajemen Keuangan*. Edisi Bahasa Indonesia. Jakarta: Erlangga.

Clarinda, L. C., Susanto, L., & Dewi, S. (2023). Pengaruh Profitabilitas, Struktur Modal, Pertumbuhan Perusahaan, Dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *Jurnal Paradigma Akuntansi*, 5(1), 96-105.

Dewi, L. P. U. K., & Wirasedana, I. W. P. (2018). Pengaruh keputusan investasi, keputusan pendanaan, kebijakan dividen dan tingkat inflasi terhadap nilai perusahaan. *E-Jurnal Akuntansi Universitas Udayana*, 23(2), 813-841.

Fajariyah, Z., & Susetyo, A. (2020). Pengaruh Profitability Ratio, Liquidity Ratio, Pertumbuhan Perusahaan Terhadap Nilai Perusahaan dan Struktur Modal sebagai Variabel Intervening. *Jurnal Ilmiah Mahasiswa Manajemen, Bisnis dan Akuntansi (JIMMBA),* 2(2), 259-270.

Fauziah, I. N., & Sudiyatno, B. (2020). Pengaruh profitabilitas dan pertumbuhan perusahaan terhadap nilai perusahaan dengan struktur modal sebagai variabel moderasi (studi kasus pada perusahaan manufaktur yang terdaftar di BEI Periode 2016-2018). *Dinamika Akuntansi Keuangan dan Perbankan,* 9(2), 107-118.

Hery. 2018. P*engantar Manajemen. Cetakan Pertama*. PT Grasindo. Jakarta.

Idris, H., Semmaila, B., Arfah, A., & Arifin, A. (2022). Pengaruh Kinerja Keuangan Terhadap Nilai Perusahaan Dengan Financial Distress Sebagai Variabel Intervening Pada Perusahaan Property Yang Terdaftar di Bursa Efek Indonesia. YUME: *Journal of Management*, 5(3), 164-173.

Jemani, K. R., & Erawati, T. (2020). Pengaruh Profitabilitas Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Intervening Pada Perusahaan Manufaktur Yang Terdaftar Di Bei. *Kajian Bisnis Sekolah Tinggi Ilmu Ekonomi Widya Wiwaha*, 28(1), 51-70.

Jogiyanto, HM. 2010. S*tudi Peristiwa (Menguji Reaksi Pasar Modal Akibat Suatu Peristiwa)*. Edisi 1. Yogyakarta: BPFE Yogyakarta.

Kasmir. 2019. *Analisis Laporan Keuangan* (I1 ed). Jakarta: Raja Grafindo Persada

Kusaendri, D., & Mispiyanti, M. (2022). Pengaruh Profitabilitas, Keputusan Investasi, dan Keputusan Pendanaan Terhadap Nilai Perusahaan dengan Kebijakan Dividen sebagai Variabel Moderasi. *Jurnal Ilmiah Mahasiswa Manajemen, Bisnis Dan Akuntansi* (JIMMBA), 4(5), 613-627.

Latan, H., & Ghozali, I. (2017). P*artial Least Squares:Concept Method, and Application utilizing WarpPLS 5.0 (Third Edit)*. s*oftware*. Badan Penerbit Universitas Diponegoro, Semarang..

Listyani, S. D., Murni, Y. Y., & Heriansyah, K. (2022). Analisis atas Determinan Nilai Perusahaan dengan Struktur Modal sebagai Variabel Intervening. Substansi: S*umber Artikel Akuntansi Auditing dan Keuangan Vokasi,* 6(1), 28-58.

Melisa, & Pranaditya, A. (2019). Pengaruh Tingkat Profitabilitas, Keputusan Investasi, Keputusan Pendanaan, Kebijakan Dividen Terhadap Nilai Perusahaan (Study Kasus Pada Perusahaan Manufaktur Sektor Industri Dasar Dan Kimia Pada Periode Tahun 2013-2017). *Jurnal Ekonomi Dan Akuntansi*, 5(5).

Puri, E. T., & Lisiantara, G. A. (2023). Pengaruh Profitabilitas Dan Likuiditas Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Intervening:(Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Sektor Industri Barang Konsumsi Periode 2019-2021). Mufakat: *Jurnal Ekonomi, Manajemen Dan Akuntansi*, 2(2), 91-107.

Rosalia, J., Utami, W. B., & Pratiwi, D. N. (2022). Pengaruh Struktur Modal, Profitabilitas, Kebijakan Dividen, Sales Growth, Dan Ukuran Perusahaan Terhadap Nilai Perusahaan (Studi Kasus Pada Perusahaan Properti dan Real Estate Yang Terdaftar Pada Bursa Efek Indonesia Tahun 2015-2019). *Jurnal Akuntansi dan Pajak,* 22(2), 971-979.

Sari, A. R., Hermuningsih, S., & Maulida, A. (2022, January). Pengaruh keputusan investasi, keputusan pendanaan, profitabilitas, dan tingkat suku bunga (bi rate) terhadap nilai perusahaan pada perusahaan manufaktur di bei tahun 2016-2020. In FORUM EKONOMI: *Jurnal Ekonomi, Manajemen dan Akuntansi* (Vol. 24, No. 1, pp. 1-12).

Savitri, D. A. M., Kurniasari, D., & Mbiliyora, A. (2021). Pengaruh profitabilitas dan ukuran perusahaan terhadap nilai perusahaan dengan struktur modal sebagai variabel intervening (Studi pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2017-2019). *Jurnal Akuntansi Dan Pajak*, 21(2).