Determinants of Capital Structure and Financial Performance in Indonesian Manufacturing Company (Empirical Study on Companies Listed on the Indonesia Stock Exchange 2010 – 2019)

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Abstract. The financial decision for the study of corporate finance is one of the most essential and challenging selections. A range of decision-making criteria can influence the capital structure and financial success of a company. The purpose of this study is to assess the factors affecting the capital structure and financial performance of the Indonesia Stock Exchange (BEI) manufacturing companies between 2010 and 2019. What is interest-tax shield including as an independent variable is the peculiarity of this study. Although the trade-off theory implies that the tax shield has a direct impact on the structure of the capital of the company, these factors were employed only by few research. The study findings show that the corporate debt to equity ratios are significantly affected by depreciation tax shields, interest tax shields, bankruptcy risk and liabilities. In addition, the company's long-term debt-to-equity ratio is significantly affected in terms of asset tangibility, investment growth opportunities, depreciation tax shield, interest tax shield and bankruptcy risk. In contrast, total equity to debt ratio has a negative impact on Indonesian manufacturing enterprises' financial performance.

Keywords: Capital Structure, Financial Performance, Panel Data, Manufacturing Companies

1 Introduction

The capital structure is determined by the company's decisions regarding project funding and operational activities, which typically come from two main sources. First, there are internal funding sources, which are typically derived from company profits that are not distributed to investors (retained earnings). The second type of external source is one that comes from outside the company, such as equity participation, debt instruments, and other outside funding sources. Where an enterprise decides to use all its equity capital, it means that it is proactive in financing and free of financial risk, but has higher average capital costs (WACC). This is because equity capital often are more expensive than debt costs. On the other side, debt-using companies can reduce their average capital cost. In this circumstance, the ideal capital structure must be determined by enterprises in order to minimize financial risk and reduce the average cost of capital.

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In line with this, the development of economic reforms and the strengthening of capital market discipline in developing countries such as Indonesia have encouraged companies to compete for the best capital to support company performance. However, depending on the specific characteristics of each company, the level of leverage and potential profit generated by companies can vary. Therefore, the determining elements affecting the capital structure and financial performance of the organization are worth investigating.

Modigliani and Miller [1] introduced the irrelevant theory into capital structures that the mix of debt and capital doesn't affect the value of the business. However, capital structure research continues to evolve over time, with a hypothetical focus on the impact of taxes, signaling, bankruptcy, agency issues, and industry impact. In general, the findings of research provide an explanation of the factors that can determine the optimal combination of corporate financing. Researchers conducting research on determinants of capital structure include, Titman and Wessels [2], Rajan and Zingales [3], De Jong et al. [4], Cahyadi [5], Chang et al. [6], and Khemiri and Noubbigh [7], as well as Bahsh et al. [8].

These studies reveal different factors, at company characteristics, industry, and country-level, that may affect the capital structure. All these studies, however, do not examine further the effect on financial performance of the company of the choice of capital structure. This contradicts the findings of Saad [9], who contends that the capital structure through leverage financing can also be an important factor in influencing a company's financial performance. Financial leverage is frequently managed by company management in order to achieve the expected level of financial performance, particularly for companies with a specific target profit margin and asset usage.

Other researchers, including Fosu [10] carried out research related to the effect of selecting the financial leverage for the financial performance of the company, which indicated that this effect had a major positive effect on the financial performance of the company, when depending on the level of market competition of products. In addition to examining the factors affecting the capital structure, Bandyopadhyay and Barua [11] studied whether the choice of capital structure affects the financial performance of the Company. The result has shown that the debt financing and financial performance of the company are in strong positive relationships. In Vietnam, Nguyen and Nguyen have also conducted further research in [12]. The study results indicate that the financial performance of the company is adversely affected by the capital structure.

In addition to the factors affecting the company's capital structure, including asset structure, growth opportunities, liquidity, corporate size, business risk, and non-debt tax shield, research by Ramli et al [13] has also examined cuntries related factors such as economic growth (GDP), interest rates and inflation as independent variable. In order to measure the link between the determinants of the capital structure and financial performance, the research also used financial use as a mediating variable. The results showed that the financial leverage mediates the relationship between capital structure determinants of Malaysian companies' financial performance, but not for Indonesian companies. On the other hand, the financial leverage has shown that Malaysian and Indonesian companies have a positive and significant direct impact on their financial performance.

Based on a series of research results, many factors affecting the capital structure of the company may be seen but not many have examined the financial performance of this choice. The authors therefore want to identify and review the factors that affect the structure of capital of the company and its effect on the financial performance of manufacturing companies in Indonesia by choosing capital structures.

The manufacturing industry sector is the largest industrial sector that dominates the Indonesian economy, so manufacturing companies were chosen as the research population. The manufacturing sector is also an industrial sector that is very complex, has an asset structure, and necessitates a large amount of capital to support company activities. On the one hand, the company's need for these funding sources can be met by internal funding sources, specifically company profits that are not distributed to investors, and additional capital input from investors. In addition, manufacturing companies in Indonesia are expected to have a high level of leverage (DOL), which will impact on the financial performance of the company.

Therefore, the management must understand thoroughly how to optimize the use of the capital structure in order to achieve their desired financial performance. It is hoped that management will now and in the future be able to decide the best capital structure for the company, using empirical evidence on the determinants of the company's capital structure and performances.

2 Literature Review

In 1958 Modigliani and Miller [1] introduced the MM theory that the value of an enterprise would always be the same regardless of its composition in capital structure or that the capital structure had no effect on its firm value [14]. This pessimistic theory, also known as MM Preposition I, assumes that in a perfectly competitive market with no taxes, transaction costs, or agency problems, every investor receives the same information and individuals and businesses can obtain the same rate of debt or loans. Nevertheless, another assumption suggests that companies with leverage face higher risks, leading investors to expect higher returns to compensate for this risk. Then the MM Preposition 2 Theory develops and states that the expected equity return has a positive relationship to the leverage as shareholders' risk increases with increased leverage [14].

With regard to the capital structure, trade off theory says that the company optimizes its capital structure to maximize corporate value by offsetting the costs and benefits received by the company in the presence of its tax and financial distress debt. The main advantage of using debt is tax saving, which is achieved by using loan interest to reduce the amount of corporate taxable income [15]. The risks of financial distress of the company can also be enhanced by an increase in corporate debt. As such, the benefit of using debt due to the effects of taxation can in this case be offset by financial distress.

Inconsistencies in previous empirical investigations led to the discovery of the theory of picking order. First, in an empirical study, Titman and Wessel [2] found a negative link between companies' previous income and the current financial structure of the period. In the meantime, Myers and Maljuf [16] found that in subsequent investigation there was no optimal capital structure. This is because the debt ratio is just the sum of the cumulative results of the financial hierarchy over time. Myers and Maljuf's hypothesis in pecking order theory [16] says that external funds could reduce the value of firms by using them to finance investment projects in companies. The basis for this hypothesis is the assumption that inequality of information (asymmetric information), tax costs and transaction costs can influence a company's choice of access to financing sources, so it is necessary to select a financing hierarchy based on the level of risk.

Moreover, Jensen and Meckling [17] introduced agency cost theory as one of the theoretical foundations of corporate financing decision making due to possible conflicts

between shareholders and other stakeholders. This theory therefore states that the capital structure of the company can be optimized by reducing the cost of the agency. The potential conflict in question is a conflict that can occur between shareholders and company management related to the potential ineffectiveness of the use of company funds by managers when the company is about to increase its equity [18]. Company managers who issue more equity will tend to increase their leisure time, consume excessively and choose investments that are not profitable for the company [14]. This is due to idle company funds. Another possibility is a conflict between shareholders and creditors. This conflict arises when it is possible to be selfish at the expense of the lender's interests by investing in high-risk projects. The solution to this conflict is to issue debt for additional capital, allowing agency costs to be substituted for debt benefit [18].

3 Methodology

The authors selected the manufacturing companies listed on the Indonesian stock exchange with financial reporting over the last ten years (2000-2019) as subject studies. The reason for choosing a manufacturing company as the research population is because this manufacturing sector has a fairly large composition in the entire industry, so the authors expect the sample to be able to represent the entire industry in Indonesia. This sector is also known to have a very large asset structure as well as a very large need and capital adequacy to be able to support its business activities.

In addition, manufacturing companies also have a high degree of leverage (DOL) which can affect operational performance, so it is necessary to be careful in considering the company's capital selection structure. The sample in this study was determined based on the purposive sample which was determined based on certain predetermined criteria. Based on the criteria set, it turns out that only 45 companies meet the author's criteria.

The variables in connection with the renewal of the determinants of capital structure in this study were adjusted to include asset tangibility (FATA), investment growth opportunity (MB), depreciation tax shield (DTS), interest tax shield (ITS), bankruptcy risk (BR), liquidity (CR), and size. The main update made in this study is to include the interest tax shield as the independent variable. Although the interest tax shield trade-off theory can provide an explanation of the tax advantages that companies may receive by issuing debt, there are not many empirical studies that include the interest tax shield as a determining factor for capital structure [14]. The assumption is also supported by Lei's [19] research, which found that interest tax shield have a significant positive effect on a company's capital structure.

Furthermore, compared to business risk, this study includes the bankruptcy risk variable as one of the determinants of capital structure in line with the trade-off theory where the risk of bankruptcy can reduce the tax advantages that companies may get by issuing debt [14]. The assumption is also supported by the research of Lei [19] which confirmed that interest tax shields have a significant positive effect on companies' capital structure.

Meanwhile, the debt to equity ratio (DER) is used to evaluate capital structure in this study, but to determine whether the structure of long-term debt or short-term debt is more influenced by these variables, the independent variable will also be regressed with the long-term debt to equity ratio (LTDR). Furthermore, the financial performance of the organization is measured using return on equity (ROE).

The multiple regression method for panel data is used by the authors to process research data. The model used is a model developed from the research of Ramli et al. [13] with modifications to the independent variables, modification and binding.

$$DER_{it} = \beta_0 + \beta_1 FATA_{it-1} + \beta_2 MB_{it-1} + \beta_3 DTS_{it-1} + \beta_4 ITS_{it-1} + \beta_5 BR_{it-1} + \beta_6 CR_{it-1} + \varepsilon_{it} \quad (1)$$

$$LTDR_{it} = \beta_0 + \beta_1 FATA_{it-1} + \beta_2 MB_{it-1} + \beta_3 DTS_{it-1} + \beta_4 ITS_{it-1} + \beta_5 BR_{it-1} + \varepsilon_{it} \quad (2)$$

The following is a model of the impact of capital structure on a firm's financial performance:

$$ROE_{it+1} = \beta_0 + \beta_1 DER_{it} + \beta_2 Size_{it} + \varepsilon_{it} \quad (3)$$

Table 1. Operational Variable

Variable	Description	Operation Variable
DER	Total Debt to Equity Ratio	Total Debt / Total Equity
LTDR	Long-term Debt to Equity Ratio	Long Term Debt / Total Equity
FATA	Tangibility Asset	Fixed Asset / Total Asset
MB	Investment Growth Opportunity	Market Value per Share / Book Value per Share
DTS	Depreciation Tax Shield	Depreciation + Amortization x Corporate Tax Rate
ITS	Interest Tax Shield	Interest of Debt x Corporate Tax Rate
BR	Bankruptcy Risk	σ Earning Before Interest and Tax / Total Asset
CR	Liability	Current Asset / Current Liabilities
Size	Firm Size	LN Total Asset
ROE	Return on Equity	Net Income / Total Asset
i	cross section	
t	time series	
β	coefficient	
ε	residual value	

(Data Proceed, 2021)

4 Hypotheses

Based on the theory above, several hypotheses can be developed as follows:

4.1 Asset Tangibility (FATA)

According to the trade-off hypothesis Jensen and Meckling [17], the capacity of assets to serve as debt collateral is the usage of assets in regard to establishing the capital structure. It is suggested that ownership of tangible assets can be utilized as loan collateral, lowering monitoring expenses and increasing debt utilization. In other words, companies that have

tangible assets as collateral will tend to have the convenience of obtaining additional capital through debt at a lower cost than issuing new equity.

According to some additional research, firms with high asset tangibility will represent a lesser risk for creditors due to the collateral guarantees described above, therefore asset tangibility is predicted to have a beneficial influence on the usage of corporate debt [3][20]. Research by Ramli et al. [13], Bandyopadhay and Barua [11], and Khemiri and Noubbigh [7] has shown similar results with these assumptions.

However, several other researchers also found different results including Kim and Sorensen [21] and Titman and Wessel [2]. The study states that asset tangibility has a detrimental impact on a company's capital structure. This is based on the assumption that the company's need for a tax shield is lower if the company has a high tangible asset structure. In addition research by Onofrei, et.al [22] and Booth at al. [23] states that tangibility has a negative effect on the company's capital structure. Most manufacturing companies in Indonesia are dominated by fixed assets, so the hypothesis is formulated as follows:

Hypothesis 1: Asset tangibility has a positive effect on the company's total debt and long-term debt to equity ratio.

4.2 Investment Growth Opportunity (MB)

Growth opportunities and corporate leverage have a link that may be described using trade-off, pecking orders, and agency theory. According to the trade-off theory, the negative link between growth opportunity and corporate debt level is due to the possibility of significant financial distress costs, particularly for businesses with relatively high market to book value ratios. Another reason is due to the tendency of companies to issue new shares when the stock price in the market is quite high [3].

Then, based on pecking order theory, firms with strong growth rates would seek to invest in diverse initiatives financed by internal financing sources, which can raise the market value and book value of stock while decreasing the value of corporate debt [5]. As a result, the growth opportunity is predicted to exhibit a negative connection with corporate debt in this scenario.

Meanwhile, based on agency theory, growth opportunity and financial leverage are also stated to have a negative relationship. The initial assumption in supporting this statement is that debt plays a "disciplinary" role to reduce the opportunistic attitude of managers [24]. Such behavior is typically observed when a firm is in a high development period, namely the phase when organization has investment possibilities that offer net investment. The net present value (NPV) is positive, the free cash flow is low, and the level of friction between shareholders and managers is lowered. When development possibilities are restricted, however, free cash flow can cause usual issues such as poor investment selection, moral hazard, and excessive earnings. In this situation, debt can play an important role in driving management performance to be more successful [25].

Several additional empirical investigations have found a negative connection between investment growth opportunity and company leverage include those conducted by Kim and Sorensen [21], Rajan and Zingales [3], Booth et al. [23], Huang and Song [26], Cahyadi [5], Barua and Bandyopadhay [11] and Li and Islam [27]. Meanwhile, the results of research on investment growth opportunities (proxy: market to book value) conducted by Jalal [28] showed a positive relationship with the level of corporate debt.

Indonesian manufacturing companies are predicted to favor more debt due to the company's proclivity for overinvestment when there are significant investment possibilities.

Hypothesis 2: investment growth opportunity has a positive effect on the company's total debt and long- term debt to equity ratio.

4.3 Depreciation Tax Shield (DTS)

The utilization of tax benefits other than debt (depreciation tax shield) is anticipated to have a negative connection with financial leverage based on the trade-off hypothesis. This is consistent with studies [29][4], which suggests that firms with a high number of depreciation tax shields should limit their access to external resources. The depreciation debt shield is thought to replace the tax benefits that come with debt (debt tax shield), such that this research can reveal a negative connection with corporate debt.

Several academics who have empirically tested this hypothesis use the ratio of depreciation and amortization expenses with the denominator of total assets to calculate the value of the depreciation tax shield [6][30]. Not all of the research results have shown a negative relationship. For example, Cahyadi's research [5] with negative results is not significant and Bahsh et al. [8] showed that negative research results are not significant between depreciation tax shield and long-term debt, but they are substantial with short-term debt. Meanwhile, research from Moradi and Pailet [31] and Ramli et al. [13] indicates that the depreciation debt shield and debt to equity ratio (DER) have a substantial positive connection.

Hypothesis 3: depreciation debt shield has a negative effect on the company's total debt and long- term debt to equity ratio.

4.4 Interest Tax Shield (ITS)

The phrase "interest tax shield" refers to a tax reduction induced by a reduction in the company's taxable income (PKP) due to interest expenditure. According to the trade-off hypothesis, the more taxes a firm must pay, the more debt it will have in its capital structure. Companies with larger non-tax debt shields, on the other hand, tend to utilize less debt [14].

Because the impact of the interest tax shield is generally fairly considerable, firms frequently consider it while establishing the appropriate capital structure. This is because debt interest is tax deductible (whereas dividend payments on equity shares are not), making debt financing far more affordable. As a result, the authors anticipate a positive connection between the interest tax shield and the degree of leverage in the firm. Empirical research that supports this theory has been conducted by Lei [19]. However, Booth et al. [23] show different results where the debt tax shield has a negative effect on the level of corporate leverage.

Hypothesis 4: interest tax shield has a positive effect on the company's total debt and long-term debt to equity ratio.

4.5 Bankruptcy Risk (BR)

Aside from the tax shield, businesses must consider the presence of bankruptcy risk when developing an appropriate target debt ratio, with the value of bankruptcy risk serving as a deductible element for the advantages of tax shield from debt usage. As a result, companies with optimal target debt ratios will adjust their corporate funding behaviour to restore their debt ratio levels to optimal conditions. In addition, bankruptcy risk also encourages high financial distress costs for companies, which in turn will limit companies in issuing debt [14]. Based on these assumptions, the study findings are predicted to reveal a negative connection between bankruptcy risk and company leverage.

According to Chen and Strange's [32] research, bankruptcy risk is positively related to debt. Meanwhile, Eldomiaty [33] and Cahyadi [5] found a negative link between bankruptcy risk and debt in their research. According to institutional settings in Indonesia, where the legal system is less established than in industrialized nations, bankruptcy risk is predicted to have a beneficial impact on the company's debt structure.

Hypothesis 5: bankruptcy risk has a positive effect on the company's total debt and long-term debt to equity ratio.

4.6 Current Ratio

Companies that currently have too high liquidity will tend to use free cash flow to finance their investment and operational activities, which has the potential to cause financial slack [14]. This encourages companies to access larger sources of external financing when internal sources of financing cannot meet the company's needs to maintain a high level of liquidity. As a result, the connection between liquidity and debt to qruity ratio is predicted to be positive. This theory is confirmed by Cahyadi's [5] findings, which demonstrate a strong positive connection between the current ratio and the debt to equity ratio.

Furthermore, strong liquidity decreases the company's liquidity risk as well as its sensitivity to debt load (interest), thus firms with high liquidity prefer to issue more debt, particularly long-term debt [11]. However, according to trade-off theory, liquidity has a negative influence on the debt to equity ratio, a finding supported by Bahsh et al [8], Barua and Bandyopadhay [11], Ramli et al. [13] for Malaysian companies, and Khemiri and Noubbigh [7] for Iranian companies (2018).

Hypothesis 6: the current ratio has a negative effect on total debt to equity ratio.

4.7 Total Debt to Equity Ratio and Company Financial Performance

Based on the assumptions of Modigliani and Miller [1], a company's capital structure does not rely on firm value, therefore it does not become an issue in a fully competitive market with no taxes, bankruptcy costs, agency costs, or information asymmetry. Unfortunately, market conditions are rarely ideal, and the company's financial structure can have a major impact on firm value [34].

In terms of financial performance, corporate management frequently confronts difficulties in establishing the appropriate capital structure composition to achieve a balance between profit and loss on the usage of financing and debt [35]. However, Agrawal and Knoeber [36] contend that the usage of debt may improve a business's financial performance by increasing control over the organization through the engagement of creditors. Furthermore, according to the trade-off hypothesis, leverage is supposed to have a beneficial influence on the company's financial performance by providing incentives for the use of debt through tax deductions [37].

Fosu [10], Detthamrong et al. [38], and Barua and Bandyopadhay [11] provide empirical evidence for these assumptions, stating that there is a positive link between debt to equity ratio and company financial performance. However, contrary study findings have been discovered, such as those of Chang et al. [6] and Nguyen and Nguyen [12], which indicates that financial leverage has a negative influence on business ROA and ROE.

Hypothesis 8: total debt to equity ratio has a negative effect on the company's return on equity.

5 Results and Discussion

Table 2 shows descriptive statistics for all variables, including the number of observations, mean value, median value, standard deviation, lowest value, and maximum value.

Table 2. Descriptive Statistic of Research Variable

Variable	Description	Unit	Mean	Std. Dev	Min	Max	Obs
DER	Total Debt / Total Equity	ratio	1,08	0,87	0,10	5,06	441
LTDR	Long Term Debt / Total Equity	ratio	0,29	0,31	0,01	1,58	441
FATA	Fixed Asset / Total Asset	ratio	0,36	0,17	0,01	0,80	441
MB	Market Value per Share / Book Value per Share	ratio	55,74	143,67	0,21	1.182,5	441
DTS	(Depreciation + Amortization) x Corporate Tax Rate	IDR	80.760	209.879	138,17	1.624.875	441
ITS	Interest of Debt x Corporate Tax Rate	IDR	35.843	92.266	8,99	929.570	441
BR	σ Earning Before Interest and Tax / Total Asset	ratio	7,87	10,04	0,02	50,18	441
CR	Current Asset / Current Liabilities	ratio	2,32	1,77	0,4	12,86	441
ROE	Net Income / Shareholders' Equity	ratio	0,14	0,25	-0,49	1,40	441
SIZE	LN Total Asset	ratio	14,74	1,65	11,82	19,66	441

(Data Proceed, 2021)

This study's hypotheses are focused with identifying the influence of capital structure variables on the firm's debt to equity ratio and how overall debt to equity ratio impacts the firm's financial performance. Tables 3 and 4 illustrate the regression findings for the two models, respectively.

5.1 The Effect of Capital Structure Determinant on the Capital Structure of a Firm

Table 3. Results of Regression the Model of Effect of Capital Structure Determinants on Firm's Debt to Equity Ratio

Independent Variable	Expectation	DER		LTDR	
		Coefficient	*P-Value*	Coefficient	*P-Value*
FATA	+	-0,078	0,616	0,108***	0,000
MB	+	-2,560	0,997	0,3 x10^{-4} ***	0,000
DTS	-	-2,620***	0,001	-1,210***	0.001
ITS	+	6,090***	0,002	1,950***	0,004
BR	+	0,011*	0,066	0,003**	0,043
CR	-	-0,052***	0,000		

Independent Variable	Expectation	DER		LTDR	
		Coefficient	*P-Value*	Coefficient	*P-Value*
Constantq	+/-	1,135***	0,000	0,225***	0,000
Rsquare overall		12%		1%	
Prob>chi2 at sig. 5%		0%		0%	
N: 441					
***p<0.01; **p<0.05; *p<0.1					

(Data Proceed, 2021)

According to Table 3, asset tangibility (FATA) has no significant influence on total debt to equity ratio but has a substantial positive impact on total long-term debt to equity ratio. This conclusion is consistent with trade-off theory, which states that firms with relatively high fixed asset values tend to issue more debt, particularly long-term debt, due to the availability of collateral for loans. The negative estimation results on the influence of asset tangibility on the company's total debt to equity ratio are consistent with Kim and Sorensen's [21] and Titman and Wessel's [2] assumption that companies with a high tangible asset structure will require less of a debt tax shield. As a result, the company's debt tends to be reduced in value. This detrimental effect is likewise consistent with the findings of Onofreia et al. [22] investigation. They believe that the negative impact is due to the company's unwillingness to use the tangibility of its assets as collateral to acquire more loans.

The substantial positive link between investment growth opportunity and long-term debt to equity ratio shows that when a firm has a high investment growth possibility, its overall debt grows. This condition contradicts the trade-off and agency theories, although it is consistent with Myers and Majluf's [16] pecking order hypothesis. Companies with strong investment growth potential but restricted cash flow owing to overinvestment will seek to raise their debt in this situation. According to Jalal's [28] study, there is a favourable link between investment development prospects and company debt.

The variable depreciation tax shield (DTS) has a substantial negative effect on both the total debt to equity ratio and the long-term debt to equity ratio. The negative sign on the DTS coefficient is consistent with the research of Bradley et al. [29], De Jong et al [4], Cahyadi [5], and Bahsh et al [8], as well as the trade-off theory that DTS can replace the benefits of tax reduction from debt, encouraging companies to reduce business risk and improve company performance.

As expected, the interest tax shield has a considerable favourable influence on the debt ratios of Indonesian manufacturing businesses, both the total debt ratio and the long-term debt ratio, according to the findings of this study. It is consistent with the trade-off hypothesis, which claims that the tax shield has a direct influence on the company's capital structure, as well as research done by Lei [19], which claims that the debt tax shield has a large beneficial effect on the company's debt to equity ratio.

The bankruptcy risk variable has a strong positive influence on the overall debt to equity ratio and the long-term debt to equity ratio. This contradicts the trade-off hypothesis, which states that if the danger of bankruptcy is significant, the firm would seek to lower its debt usage, particularly short-term debt, to avoid the company's liquidity risk. Positive regression results imply that the greater the bankruptcy risk, the greater the company's debt, and vice versa. This is consistent with the findings of Booth et al. [23] and Chen and Strange [32]. This is most likely influenced by the existence of a legal system in Indonesia that is not running so well. Thus, although the risk of corporate bankruptcy in Indonesia is quite high, the company

still does not experience difficulties in accessing debt. This encourages a positive influence between debt and the risk of corporate bankruptcy.

The liability variable has a strong negative influence on the overall debt to equity ratio variable. This is consistent with the pecking order hypothesis, which argues that firms with high liquidity prefer to use internal funding sources to support corporate operations because they have enough cash and cash equivalents. The negative findings in this study also consistent with the findings of Barua and Bandyopadhay [11] and Ramli et al. [13] for Malaysian companies and Khemiri and Noubbigh [7].

5.2 The Effect of Total Debt to Equity Ratio on Financial Performance of a Firm

Table 4. Results of Regression The Model of Effect of Total Debt to Equity Ratio on Firm's Financial Performance

Independent Variable	Expectation	ROE	
		Coefficient	*P-Value*
DER	-	-0,076**	0,035
SIZE	-	-0,068***	0,000
Constant	+/-	1,220***	0,000
R square		2,4%	
Prob>chi2 at sig. 5%		0%	
N: 441			
***p<0.01; **p<0.05; *p<0.1			

(Data Proceed, 2021)

According to Table 4, a company's total debt to equity ratio has a negative and significant influence on its financial performance. The regression estimation results contradict agency theory, which argues that using debt may enhance a company's financial performance because creditors have a greater role in controlling it. The negative sign also contradicts the trade-off hypothesis, which claims that the company's financial performance will improve with the benefits of debt tax deductions. The conclusion also opposes Dupont analysis, which states that financial leverage has a multiplier effect on a company's return on equity. The results of this study are in line with the research of Chang et al. [6] and Nguyen and Nguyen [12] that financial leverage has a negative effect on ROA and ROE.

The negative impact of DER on the financial performance of Indonesian manufacturing businesses may be attributed to corporations being more cautious about liquidity risk and the inclination of companies to use corporate revenue as the primary source of financing rather than debt.

6 Conclusion

For the period 2010 to 2019, this study experimentally investigated the link between the factors of capital structure and debt to equity ratio, as well as the influence of total debt to equity ratio on a firm's financial performance, especially for manufacturing businesses in Indonesia. The major objective of this research is to explore the elements that impact capital structure, followed by a determination of how this capital structure influences company financial performance.

Based on the regression estimation results in this study, it is possible to conclude that capital structure variables such as depreciation tax shield and liquidity have a substantial negative impact on the company's total debt to equity ratio. The total debt to equity ratio also significantly influenced by factors such as interest tax shield and bankruptcy risk. Meanwhile, asset tangibility and investment growth potential factors have little influence on the total debt to equity ratio of Indonesian manufacturing firms.

In terms of long-term debt to equity ratio, the results demonstrate that the depreciation tax shield has a substantial negative influence on the long-term debt to equity ratio of Indonesian manufacturing firms. Furthermore, as expected, the interest tax shield has a favourable impact on the company's long-term debt. Other factors, such as asset tangibility, investment development opportunity, and bankruptcy risk, have been proven to have a substantial beneficial influence on the company's long-term debt ratio.

The total debt to equity ratio has been shown to have a substantial impact on the company's financial success, as assessed by the return on equity (ROE) proxy (DER). Other capital structure factors, such as size, have also been proven to have a substantial negative impact on the company's ROE.

The conclusions of this study have major management implications, namely that capital structure decisions are impacted by firm-specific factors such as asset tangibility, investment growth opportunity, depreciation tax shield, interest tax shield, bankruptcy risk, and liability. As a consequence, management must grasp how to leverage internal characteristics to manage capital structure so that the firm may earn more. The unexpected sign of a relationship between financial leverage and the financial performance of an Indonesian manufacturing company could be used to enrich capital structure theory, which states that certain characteristics of financial leverage can also affect firm financial performance differently as well as the result of previous study by Chang et al. [6] and Nguyen and Nguyen [12]. Furthermore, this research indicates that total debt to equity ratio has a substantial direct influence on company financial performance, and firm-specific factors have a considerable impact on firm capital structure.

This study has certain limitations that should be noted. To begin, this analysis eliminates other factors that may influence capital structure, such as country-level determinants and market rivalry, as well as other determinants that affect financial performance. Second, because it is difficult to collect information based on financial statements, the interest tax shield in this study does not distinguish between long-term debt, bank debt, and other interest.

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