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THE EFFECT OF LEVERAGE AND INVESTMENT DECISIONS ON FINANCIAL DISTRESS WITH GOOD CORPORATE GOVERNANCE AS MODERATING VARIABLE IN MANUFACTURING COMPANIES LISTED ON THE IDX IN 2016-2020

Safira Permata Adi, Yulia Efni, Fitri

Faculty of Economics and Business Riau University, Pekanbaru, Indonesia

Email: safira.permata1753@student.unri.ac.id

ABSTRACT: *This study aims to examine the effect of leverage and investment decisions on financial distress, with good corporate governance as a moderating variable. The population in this research were manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2016–2020. Purposive sampling was used to determine the sample, which was obtained from 32 companies. The type of data used in this research was secondary data obtained from IDX and the annual report. The analytical method used was logistic regression and moderating analysis with the help of SPSS software to process the data. This study concluded that leverage and investment decisions significantly influence financial distress. On the other hand, good corporate governance does not significantly influence financial distress. GCG cannot moderate the effect of leverage and investment decisions on financial distress.*

Keywords: *Financial Distress, Leverage, Investment Decision, Good Corporate Governance*

INTRODUCTION

According to the Indonesia Ministry of Finance, the ratio of debt interest to state income has increased from 8.6% in 2014 to 13.3% in 2018. Based on the latest investigation, this ratio touched 19.06% in 2021. It is almost twice the recommended ratio by the International Monetary Fund (IMF), 7-10%, and three times greater than the safe limit recommended by International Debt Relief of 4.6-6.8%.

Manufacturing is an important key to spurring the national economy. It has a chain effect: increasing the added value of raw materials, absorbing much labor, generating foreign exchange from exports, and being the largest contributor to taxes and excise. Based on the SULNI issued by the Central Bank of Indonesia, manufacturing is the third largest external debt allocation. Manufacturing is the largest contributor to the 2019 GDP

growth rate of 19.7%. However, the rate of GDP growth has declined. The biggest decline occurred in 2019.

Table 1: Manufacturing to GDP 2014-2019

Sectors	2014	2015	2016	2017	2018	2019
Manufacturing	4.64	4.33	4.26	4.29	4.27	3.80

Source: BPS, 2020

The decline also occurred in terms of investment. During the January-September 2019 period, investment flowing into the manufacturing sector decreased by 13.15% compared to the same period in the previous year.

Table 2: Manufacturing Average ROA Value 2016-2020

Return on Asset	2016	2017	2018	2019	2020
	-2,36	-10,15	-2,86	-1,41	-4,50

Source: Annual Report

Based on the table above, the average profitability of manufacturing companies, which is calculated from the return on assets (ROA), has a negative value from 2016 to 2020. This negative return becomes a question regarding how companies make decisions to invest their assets. The investment decision is one of the most important decisions for the company. Suppose the company can make the right investment decisions. In that case, the company's assets will produce optimal performance to provide a positive signal for investors, increasing stock prices, increasing company value, and reducing the risk of financial distress.

In addition to investment decisions, Atmaja (2003) said it was important to make funding decisions by considering the company's debt and capital composition. The trade-off theory states that using debt (leverage) will only increase the company's value to a certain extent. Excessive use of debt will increase interest expenses, so an increased risk of financial distress will follow as the risk of default increases.

Financial distress is a phase before bankruptcy where the company experiences financial difficulties. Financial statements are a source of information for investors and a reflection of the company's financial performance as managed by agents or management. Therefore, these agents play an important role in the company's management. Financial ratios include leverage, and investment decisions can be seen from the financial statements.

These agents are regulated by a set of rules, namely corporate governance or good corporate governance. With the implementation of GCG principles, management will not be arbitrary and selfish in making decisions. Every decision will be made carefully, with full consideration, and prioritized for the common interest, namely the

company's sustainability. In making decisions related to debt, managers will not carelessly owe without consideration and let debt get out of control. Likewise, in making investment-related decisions, management will not arbitrarily invest company funds without taking into account the risks and returns in the future.

LITERATURE REVIEW

Trade Off Theory

Trade Off Theory explains how the optimal capital structure. The essence of the trade-off theory in the capital structure is to balance the benefits and sacrifices arising from using debt (Umdiana & Claudia, 2020). The trade-off theory illustrates that the optimal capital structure can be determined by balancing the benefits of using debt (the tax shield benefit of leverage) with financial distress costs and agency problems (Fuady, 2014). The greater the use of debt, the greater the benefits, but financial distress costs and agency costs also increase. Hence, using debt will increase the company's value linearly only up to a certain point. If the use of debt continues to increase, the costs associated with bankruptcy (bankruptcy-related costs) will reach their highest point, making the use of debt no longer profitable. Scott (1977) and Chandra (2014) explained that, in the trade-off theory, an increase in debt that is too much would cause an increase in risk, namely financial distress. This increased risk will increase the cost of bankruptcy. The possibility of bankruptcy will be greater if the company uses more debt (Umdiana & Claudia, 2020).

Agency Theory

An agency relationship is defined by Jensen and Meckling (1976) as a contract that occurs between one or more people in which the owner (principal) hires another person (an agent) to perform some services on behalf of the owner, which includes the delegation of decision-making authority to the agent. In other words, the principal delegates authority to the agent to carry out specific responsibilities in accordance with the work contract. The principal is the owner of capital, or the investor, while the agent is the management of the company.

Schiff and Lewin (1970) in Hartono and Riyanto (1997) state that the relationship between the principal and agent can lead to a condition of information imbalance (asymmetrical information) because the agent is in a position to have more information about the company than the principal. In this asymmetric condition, the agent can influence the accounting numbers presented in the financial statements using earnings management. Assuming that individuals act to maximize their interests, the information

asymmetry they have will encourage the agent to hide some information that the principal does not know. In the agency relationship, managers, as parties who have direct access to company information, have asymmetric information about the company's external parties, such as creditors and investors. where there is information that is not disclosed by the management to external parties of the company, including investors. To minimize information asymmetry, the company's management must be monitored and controlled to ensure that it is fully compliant with the various applicable rules and regulations.

Signaling Theory

According to Connelly *et al.*, (2011), signaling theory is a concept where the information provider can choose what and how the information will be displayed, and the information recipient can choose how to interpret the information received (Khairudin & Wandita, 2017). Morris (1987) suggests that signaling theory was developed to deal with the problem of information asymmetry in companies by increasing the signaling of information from parties who have more information to stakeholders who have less information. Information asymmetry in the capital market occurs because the company (management) has more information than outsiders (investors). To overcome this asymmetric information problem, companies provide information to the market, which can generally be responded to by the market as a signal (Santosa & Kurniawan, 2016).

According to Morris (1987), signaling theory shows how the problem of information asymmetry in the market can be reduced by providing more information signals to other parties. One of these signals can be seen in the financial statements. The financial statements published by the company are a source of information regarding the company's financial position, performance, and changes in the company's financial position, which are very useful in supporting the right decisions (Fadhilah & Nurdin, 2020). Financial statements will be more useful for making economic decisions if the information can predict what will happen in the future. By further processing financial statements, predictions about what might happen in the future become possible.

RESEARCH METHODOLOGY

The type of data in this research is quantitative. The data source used in this study is secondary data derived from the financial statements of sample companies obtained from the Indonesia Stock Exchange through its official website, namely www.idx.co.id, and annual reports from each company's websites. The population in this study

consists of companies that have gone public and are engaged in the manufacturing sector and are listed on the Indonesia Stock Exchange for 2016–2020. Determination of samples drawn from the population is a company that meets several criteria using the purposive sampling method, and a sample of 32 companies was obtained. Data analysis in this study will be done using logistic regression using SPSS.

1. Financial Distress

Platt and Platt (2002) define financial distress as the stage of decline in a company's financial condition preceding bankruptcy or liquidation. Financial distress in this study will be calculated using the Zmijewski model. Zmijewski (1984) measured his model's accuracy and got an accuracy value of 94.9% (Rahmat, 2020). Zmijewski uses ratio analysis, which measures a company's performance, leverage, and liquidity, for his prediction model. Zmijewski applied a probit analysis to 40 companies that had gone bankrupt and 800 companies that were still surviving at that time. This model has the following formula:

$$X = -4,3 - 4,5x_1 + 5,7x_2 - 0,004x_3$$

Where:

X_1 = Return On Assets (ROA)

X_2 = Leverage (Debt Ratio)

X_3 = Liquidity (Current Ratio)

If the X-Score value is less than 0, the company is categorized as healthy. Meanwhile, if the X-Score value is greater than 0, the company can go bankrupt.

2. Leverage

Leverage is how much the company is financed with debt compared to its assets (Fabozzi & Drake, 2009).

$$\text{Leverage} = \frac{\text{Total Debt}}{\text{Total Asset}}$$

3. Investment Decision

Companies make investment decisions regarding allocating their assets for greater value in the future (Fitri & Hosen, 2015).

$$\text{Total Asset Growth} = \frac{\text{Asset Growth} - \text{Asset Growth}_{-1}}{\text{Asset Growth}_{-1}}$$

4. Good Corporate Governance

Good corporate governance is a set of rules that regulate the relationship between each party related to the company. It can be measured by the Corporate Governance Performance Index (Bhuiyan & Biswas, 2007).

$$\text{CGPI} = \frac{\text{The total score of items disclosed by the company}}{\text{maximum score that the company}} \times 100 \text{ should disclose}$$

RESULT

The result of this descriptive statistical analysis can be seen in the following table below:

Table 3: Result of Descriptive Statistic Analysis

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DAR	160	0,07	2,90	0,6126	0,42471
TAG	160	-0,88	5,10	3,1419	0,43746
GCG	160	20,43	89,66	54,7661	16,85102

Table 3 shows each variable's minimum value, maximum value, mean, and standard deviation. The data distribution is good if the mean exceeds the standard deviation. Then we can conclude that each variable has a good data distribution.

Table 4: Average Value of Each Variable

No.	Variable	2016	2017	2018	2019	2020
1	DAR	0,62	0,63	0,62	0,61	0,59
2	TAG	-1,52	5,38	20,34	-1	-7,48
3	GCG	50,47	52,17	55,08	57,30	58,82
4	FD	11,19	44,27	11,53	4,69	17,30

From Table 4, it can be seen that DAR fluctuates every year. TAG has drastic increases and decreases in value every year. GCG is increasing every year, but the score is still below 60%. FD also fluctuates, but on average, manufacturing companies have a risk of financial distress every year.

Table 5: Hosmer and Lemeshow Test

Chi-square	df	Sig.
4,192	8	0,839

The chi-square table value for DF 8 at a significance level of 0.05 is 15,507. Because Hosmer and Lemeshow count 4.192 Chi-square table 15.507 and a significance value of 0.839 (> 0.05), H0 is accepted, which means that the model fits the observational data, so this logistic regression model is feasible to be used in an advanced stage.

Table 6: Classification Table

	Not experiencing financial distress	Experiencing financial distress	Percentage correct
Not experiencing financial distress	0	61	0
Experiencing financial distress	0	99	100.0
Overall percentage			61.9

Table 6 shows that based on the results of 160 observations, it can be seen that 99 observations were successfully predicted while the other 61 observations were unable

to be predicted. so that the overall percentage value before the independent variable is entered into the model is $99/160 = 61.9\%$.

Table 7: Nagelkerke R Square Test

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
201,444	0,068	0,092

The Nagelkerke R square value is 0.092 in Table 7, indicating that the extent of the influence of the independent variables (X1 and X2) on the dependent variable (Y) is 9.2%. This suggests that the independent variable has a 9.2% effect, while other variables decide the remaining 90.8%.

Table 8: Overall Model Fit Test

-Iteration	-2 Log likelihood	Constant
Step 1	203,112	0,641
Step 2	201,714	0,601
Step 3	201,448	0,603
Step 4	201,444	0,605
Step 5	201,444	0,605

From Table 8, it can be seen that there is a decrease from the value of -2 log likelihood (Block 0) to a value of -2 log likelihood (Block 1). This shows that the regression model that is formed is getting better.

The difference between the initial value of -2 Log Likelihood and the final value of -2 Log Likelihood is 11.251. This value can also be seen from the omnibus test of the model coefficients table in the chi-square column.

Table 9: Omnibus Test

		Chi-square	df	Sig.
Step 1	Step	11,251	3	0,010
	Block	11,251	3	0,010
	Model	11,251	3	0,010

Based on Table 9, it is known that the chi-square is 11.251 with a significance of 0.010. Because the significance value is $(0.010) < (0.05)$, it can be interpreted that the variables debt to asset ratio, total asset growth, and good corporate governance together have a significant effect on financial distress.

Table 10: Logistic Regression Test Result

	B	Sig
Constant	0,695	0,313
Debt to Asset Ratio	1,312	0,036
Total Asset Growth	-1,179	0,049
Good Corporate Governance	-0,015	0,146
The debt of Asset Ratio*GCG	-0,079	0,095
Total Asset Growth*GCG	-0,000211	0,322

Based on the logistic regression test result in Table 10, we can conclude that:

- The constant value of 0.605 indicates that if the values of the debt-to-asset ratio, total asset growth, and good corporate governance are considered to be 0, then financial distress has a positive value of 0.605.
- Debt to Asset Ratio (X_1) has a significance level of 0.036 < 0.05, indicating that it has an effect on financial distress (Y). Every 1 unit increase in the debt-to-asset ratio will increase financial distress by 1.312.
- Total asset growth (X_2) has a significance of -0.049 > 0.05, which means it has a significant effect on financial distress (Y). Every 1 unit increase in total asset growth will decrease financial distress by 1.179.
- Good corporate governance (Z) has a significance of 0.146 > 0.05, which means it does not have a significant effect on financial distress (Y). Every 1 unit increase in the debt-to-asset ratio will increase financial distress by 1.312.
- Debt to Asset Ratio (X_1) is moderated by Good Corporate Governance (Z) and has a significance of -0.095 > 0.05, indicating that it has no effect on financial distress (Y).
- Total asset growth (X_2) moderated by good corporate governance (Z) has a significance of 0.322 > 0.05, which means it does not have a significant effect on financial distress (Y).

DISCUSSION

The Effect of Leverage on Financial Distress

Based on the study's results, it was found that the leverage variable, as measured by the debt-to-asset ratio, had a significant positive effect on financial distress. This shows that if leverage is high, the possibility of financial distress will also be high because the use of large debt causes the company to have a high-interest expense, which will increase the risk of default, followed by an increase in the risk of financial distress. Using large amounts of debt for operational activities will have an unfavorable impact on the company if it generates low income. Using uncontrolled debt will increase the risk of default because the company will incur high-interest expenses, which will increase the risk of financial distress.

A positive direction can be interpreted as the fact that increasing leverage also increases financial distress, which is in accordance with the trade-off theory, which reveals that debt will only be optimal at a certain limit. If it exceeds, the company faces an increased risk of financial distress. This is also supported by the results of the

descriptive analysis, where the increase in the debt-to-asset ratio in 2017 was also followed by an increase in financial distress in the same year. Moreover, the debt-to-asset ratio decline in 2018 and 2019 was also followed by a decrease in financial distress. This shows that an increase in the debt-to-asset ratio will also increase the financial distress of manufacturing companies. The results of this study are supported by other studies conducted by Sari & Putri (2016), Triwahyuningtias and Muharam (2012), and Wijayanti (2018). However, it contradicts Curry & Banjarnahor (2018); Putri and Merkusiwati (2014), which state that the debt-to-asset ratio does not affect financial distress.

The Effect of Investment Decisions on Financial Distress

Based on the study's results, it was found that the investment decision variable, as measured by total asset growth, had a significant negative effect on financial distress. This shows that an increase in total asset growth will increase the company's income, accompanied by an increase in the company's financing capability, so financial distress will decrease. The increase in asset growth also indicates that the company has made good investment decisions in managing its assets, accompanied by good prospects for the future, which will affect the increase in stock prices, which will also increase investment interest so that the risk of financial distress decreases.

A negative direction means that an increase in total asset growth will reduce financial distress, per the signaling theory. According to signaling theory, financial ratios in financial statements will provide information for investors that will influence their decisions. Investment decisions based on projected total asset growth provide information related to the growth of company assets. Asset growth will indicate that the investment decisions made by the company can increase the number of its assets. The increase in the number of assets in the company can increase revenue because the increase in funds owned by the company can be used for company operations. The higher the income, the greater the company's ability to pay its obligations. So it will reduce the risk of financial distress.

Companies with good prospects will increase investor interest in investing in the company because the signal received by investors is a positive signal that this company will continue to grow in the future. This increase in investment interest from investors will increase the company's share price so that it can prosper its stakeholders and the company itself, reducing the risk of financial distress. In addition, the increase in investment decisions shows that the company has good prospects for the future. This is supported by the results of the descriptive analysis, where a decrease followed

the increase in total asset growth in 2018 and 2020 in financial distress. This shows that increasing total asset growth will reduce manufacturing companies' financial distress risk. The results of this study are supported by several previous studies conducted by Fitri & Hosen (2015). However, contrary to Fadhilah & Nurdin (2020); Audina & HS (2018), who state that the total asset growth variable has no significant effect on financial distress.

The Effect of Good Corporate Governance on Financial Distress

Based on the study's results, it was found that the good corporate governance variable did not affect financial distress. The study results showed that GCG negatively impacts financial distress, but the effect is insignificant. This can be interpreted as meaning that in this study, GCG is not one of the main factors affecting manufacturing companies' financial distress. However, applying GCG principles will theoretically increase management's supervision and transparency, thereby preventing management from making decisions that only benefit one party and reducing the risk of financial distress.

A negative direction can be interpreted as meaning that the better the disclosure of a company's good corporate governance, the lower the company's financial distress. Based on agency theory, the manager has more information about the company than the owner, resulting in asymmetrical information that benefits one party. To reduce information asymmetry, good corporate governance is required. Applying the principles of good corporate governance, including transparency and good supervision, in a company will prevent managers, as parties with more information, from making decisions that only benefit themselves. Thus, the company can avoid the potential for financial distress (Triwahyuningtias & Muharam, 2012).

Based on the results of the descriptive analysis, the implementation of GCG in manufacturing companies can still be said to be poor. Only in 2018 and 2019 was an increase in good corporate governance followed by a decrease in financial distress. This insignificant effect can occur because the implementation of GCG by manufacturing companies is still below 60%. There are indications that many companies still apply the principles of GCG only because of regulatory incentives; hence, the implementation of GCG is still not fully implemented. The principles of GCG have not become a culture within the company and have not been utilized properly; they have not directly affected financial distress.

The results of this study are supported by previous research conducted by Putri and Merkusiwati (2014), which stated that the good corporate governance variable had

no significant effect on financial distress. Another study was conducted by Sastriana (2013) using the variable of the board of commissioners, and institutional ownership did not significantly affect financial distress. Nevertheless, Sakinah (2018) states that good corporate governance negatively and significantly affects financial distress.

The Effect of Leverage on Financial Distress with Good Corporate Governance as Moderating Variable

Based on the study's results, it was found that the leverage variable, moderated by good corporate governance, had an insignificant negative effect on financial distress. Compared with the direct test results between leverage variables and financial distress, these results indicate that good corporate governance weakens the positive effect of leverage on financial distress, but the effect is not significant.

According to agency theory, good corporate governance prevents organizations from making decisions that benefit only one side. This is consistent with the assumption that excellent company governance will mitigate the effects of leverage on financial distress. According to the trade-off theory, the usage of debt is optimal to a point. Excessive and uncontrolled use of debt will have a detrimental impact on the company and increase the risk of financial distress.

This is achievable if the company has strong governance and adheres to the principles of good corporate governance stated in legislation, allowing it to generate competent managerial parties. In practice, however, many organizations continue to have a low percentage of excellent corporate governance. This demonstrates that excellent corporate governance is merely a formality, or that the company only wishes to fulfill responsibilities that have been established but are not supported by efficient performance.

According to Amanti (2010), the practice of good corporate governance in the company is indeed implemented, but it is still not fully implemented by the company in accordance with the principles of good corporate governance, or it can be said that the practice of good corporate governance is not fully implemented by the company.

This study found that good corporate governance has no effect on moderating the relationship between leverage and financial distress. Because the direct test results between leveraged variables and financial distress have a significant effect, it can be concluded that good corporate governance is a moderating predictor variable.

The test results in this study show that the good corporate governance variable cannot act as a moderating variable in the relationship between leverage and financial distress, so this finding is against the fourth hypothesis proposed. It can be concluded

that good corporate governance cannot moderate the effect of leverage on financial distress and can only act as a predictor of moderation.

The Effect of Investment Decisions on Financial Distress with Good Corporate Governance as Moderating Variable

Based on the study's results, it was found that the investment decision variable moderated by good corporate governance had an insignificant negative effect on financial distress. Compared with the direct test results between investment decision variables and financial distress, these results indicate that good corporate governance strengthens the negative effect of investment decisions on financial distress, but the effect is insignificant.

In theory, implementing good corporate governance will monitor and consider investment decisions transparently so that investment decisions will not be made arbitrarily. so that the investment decisions made are the best ones for the company. The increase in the number of assets in the company can increase income because the increase in funds owned by the company can be used for company operations. The higher the income, the greater the company's ability to pay its obligations. When the company can finance operations and pay its debts, it will avoid the risk of financial distress.

Good corporate governance is required when deciding which assets to invest in. A long-term process, good corporate governance cannot be judged in a short period of time. At the same time, investment decisions are a short-term measure of financial success in which the outcomes are used to make decisions for the organization for a limited time. As a result, the effect is not immediately obvious. Then, with a still-inadequate implementation of good corporate governance, the principles of good corporate governance have not been fully applied in the organization, so the variable of good corporate governance does not reduce the influence of investment decisions on financial hardship. This is due to the fact that the general guidelines for GCG in Indonesia are currently voluntary.

This study found that good corporate governance has no effect on moderating the relationship between investment decisions and financial distress. Because the direct test results between the investment decision variables and financial distress have a significant effect, it can be concluded that good corporate governance only acts as a predictor of moderation.

CONCLUSION AND SUGGESTION

Based on the research results that have been described in the previous chapter, the author has the following conclusion:

Good corporate governance variables cannot act as a moderating variable in the relationship between leverage and financial distress; neither investment decisions nor financial distress. Leverage and investment decisions have a significant effect on financial distress, while good corporate governance does not have a significant effect on it. The performance of good corporate governance in the manufacturing sector also shows that corporate governance principles have not yet become a culture within the company. It can be seen that regulations and formalities still drive this application. It could be why good corporate governance cannot act as a moderating variable in this study.

The limitations of this study are that the good corporate governance variable is not the right moderating variable to be chosen. This study only examined the 2016–2020 period, and the research results will be more accurate if you extend the research period. This study only uses manufacturing sectors. Using all sectors on the Indonesia Stock Exchange to describe the results and represent all existing stocks is better.

Suggestions for future researchers: Choosing another variable, such as other financial ratios or macroeconomics, is better. Also, choose another moderating variable, such as capital structure.

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