



Analysis of the Influence of Profitability, Agency Costs, and the Composition of the Independent Commissioners on Financial Distress

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ABSTRACT

This study aims to explain the influence of profitability, agency costs, and independent commissioners on financial distress in energy companies listed on the Indonesia Stock Exchange for the 2019-2021 period. The analysis method in this research begins with collecting secondary data from the financial reports of energy companies sampled using purposive sampling techniques, with a total of 61 companies. Hypothesis testing was conducted using panel data regression methods with the EViews 13 software. The results of the study show that profitability proxied by ROA does not have a significant effect on financial distress, while agency costs have a positive and significant effect on financial distress. On the other hand, independent commissioners do not have a significant influence on financial distress. The implication of this research is that an increase in agency costs can be an indicator of financial distress risk in companies, so companies and investors are expected to pay more attention to the management of agency costs to reduce the potential for bankruptcy

INTRODUCTION

In recent years, the energy sector has faced significant challenges driven by fluctuating commodity prices and changes in energy consumption patterns. While energy demand remains high due to population growth, the prices of energy commodities such as coal and natural gas have sharply declined (Petriella, 2020). Additionally, the COVID-19 pandemic imposed mobility restrictions, which reduced electricity and fuel consumption, causing substantial financial strain on many energy companies (Yovanda & Arifin, 2020). This phenomenon has led to financial distress, a critical financial condition that, if left unaddressed, can result in bankruptcy.

The financial performance of energy companies in Indonesia reflects the impact of this phenomenon. For instance, PT Perusahaan Gas Negara Tbk (PGAS) reported a loss of USD 215 million in 2020, compared to a net profit of USD 112 million in the previous year, representing a nearly 200% increase in losses. Similarly, PT Bukit Asam Tbk (PTBA) experienced a decline in net profit from IDR 4 trillion in 2019 to IDR 2.4 trillion in 2020, indicating a 40% decrease (Rahma, 2020; Ramadani, 2022).

This study employs agency theory (Jensen & Meckling, 1976) to analyze conflicts of interest between managers (agents) and company owners (principals). The theory explains that agency costs, such as managerial salaries and administrative expenses, can impose financial burdens that worsen a company's condition, particularly if poorly managed. Furthermore, the theory underscores the importance of good corporate governance, including the presence of independent commissioners, in mitigating the risk of financial distress.

Although numerous studies have investigated factors influencing financial distress, the findings remain varied and inconsistent. Some studies suggest that profitability negatively affects financial distress (Aisyah et al., 2017; Dwiantari & Artini, 2021; Endiana et al., 2015; Masdupi et al., 2018), while others find no significant impact (Marfungatun, 2015). Similarly, research on agency costs shows mixed results, with some studies indicating a positive effect on financial distress (Apriani, 2022; Ayuningtyas, 2013; Prastiwi & Dewi, 2019), whereas others find no significant impact (Yustika et al., 2015). The effectiveness of independent commissioners in reducing financial distress risk is also debated (Rahmawati, 2016; Widhiadnyana et al., 2019).

This study contributes new insights by integrating three key variables – profitability, agency costs, and the composition of independent commissioners – within the context of energy companies listed on the Indonesia Stock Exchange. By utilizing data from the 2019–2021 period, this research provides an up-to-date analysis of factors influencing financial distress using panel data regression, enabling a deeper understanding of the relationships. Additionally, the study strengthens the understanding of corporate governance as a means of mitigating bankruptcy risks in the energy sector, an area that remains underexplored in previous Indonesian studies.

LITERATURE REVIEW

This research is based on the agency theory introduced by Jensen and Meckling (1976). The theory explains the relationship between managers (agents) and company owners (principals), where agents are tasked with managing the company in the interests of the principal. However, conflicts of interest often arise as agents tend to prioritize personal interests over corporate goals. This condition creates agency costs, which include incentives for managers and monitoring expenses to ensure managers act in accordance with the principal's objectives. Within this theory, good corporate governance (Good Corporate Governance/GCG) plays a critical role in minimizing conflicts of interest and agency costs. One of the main mechanisms in GCG is the independent board of commissioners, tasked with objectively and independently overseeing corporate decision-making.

Moreover, agency theory is also relevant for understanding the impact of profitability on financial distress. Profitability, proxied by Return on Assets (ROA), reflects a company's ability to generate profit from its assets. High ROA indicates management efficiency, which can reduce the risk of financial distress. Conversely, financial distress is an early stage of bankruptcy, characterized by a company's inability to meet its financial obligations (Altman, 1968). This theory highlights the importance of profitability management and controlling agency costs as preventive measures against financial distress. Previous studies have provided insights into factors influencing financial distress, but the results remain varied and inconsistent. For instance, research by Aisyah et al. (2017) and Masdupi et al. (2018) indicates that profitability has a significant negative effect on financial distress, showing that companies with higher profitability face lower risks of financial difficulties. Conversely, Marfungatun (2015) found no significant effect of profitability on financial distress, presenting results that contradict earlier findings.

Regarding agency costs, Prastiwi and Dewi (2019) demonstrated a positive relationship between agency costs and financial distress, suggesting that higher agency costs increase the risk of bankruptcy. However, a study by Yustika et al. (2015) found no significant effect of agency costs on financial distress, highlighting inconsistencies in research findings.

On the role of independent commissioners, research by Rahmawati (2016) and Triwahyuningtias (2012) found that the presence of independent commissioners can reduce the risk of financial distress, as better oversight prevents high-risk managerial decisions. Conversely, Widhiadnyana et al. (2019) argued that a high proportion of independent commissioners does not always guarantee effective oversight and thus has no significant impact on financial distress. This study aims to integrate three main variables – profitability, agency costs, and the composition of independent commissioners – as predictors of financial distress in energy companies listed on the Indonesia Stock Exchange. Profitability is proxied by Return on Assets (ROA), agency costs are measured through administrative costs, and the composition of independent commissioners is calculated based on the proportion of independent members

on the board of commissioners, as stipulated by OJK Regulation No.33/POJK.04/2014. The study also employs firm size as a control variable, proxied by the natural logarithm of total assets. The relationship between these variables is analyzed using panel data regression, enabling dynamic testing of intervariable relationships over the 2019–2021 study period. Based on agency theory and prior research, the hypotheses developed in this study are as follows:

The Effect of Profitability on Financial Distress

High profitability indicates a company's efficiency in managing assets to generate profit, thus reducing the risk of financial distress. Studies by Aisyah et al. (2017) and Masdupi et al. (2018) support a significant negative relationship between ROA and financial distress. Therefore, the first hypothesis is:

H1: Profitability has a negative effect on financial distress.

The Effect of Agency Costs on Financial Distress

Agency costs, such as administrative expenses and managerial incentives, increase the financial burden on a company. Research by Ayuningtyas (2013) and Prastiwi and Dewi (2019) shows that higher agency costs lead to a greater risk of financial distress. Therefore, the second hypothesis is:

H2: Agency costs have a positive effect on financial distress.

The Effect of Independent Commissioners' Composition on Financial Distress

Independent commissioners act as overseers, ensuring managerial decisions align with the interests of company owners. Research by Putra and Muslih (2019) and Rahmawati (2016) found that the presence of independent commissioners negatively impacts financial distress. Therefore, the third hypothesis is:

H3: The composition of independent commissioners has a negative effect on financial distress.

The conceptual framework in this research is as follows

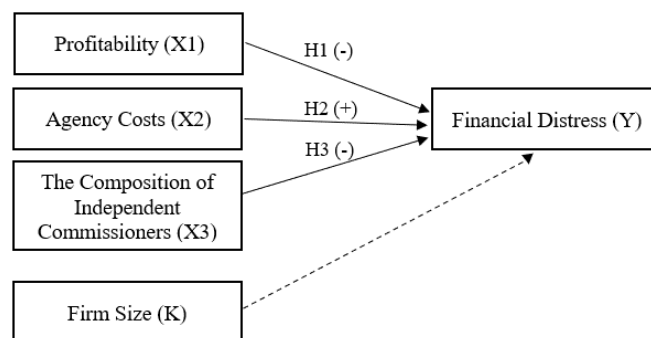


Figure 1. Conceptual Framework

METHODOLOGY

This study employs a quantitative approach with a causal associative research design. This type of research aims to identify the relationships and effects between the independent variables – profitability, agency costs, and the composition of independent commissioners and the dependent variable, financial distress. This approach is suitable for explaining the influence of these factors in the context of energy companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2021 period.

The study population includes all energy companies listed on the IDX during the specified period. Sampling was conducted using a purposive sampling method with the following criteria: companies actively operating during the research period, publishing complete financial and annual reports, and providing relevant data for all research variables. Based on these criteria, 61 companies were selected as the sample, with a total of 183 observations over three years.

The data used in this study are secondary data obtained from financial and annual reports of energy companies available on the official IDX website (www.idx.co.id). The data collection steps included downloading financial and annual reports, then extracting relevant information such as ROA, administrative costs, the proportion of independent commissioners, and the Altman Z-Score values to measure financial distress.

Data analysis was conducted using the panel data regression method, which enables testing the relationship between independent and dependent variables while considering time series and cross-sectional dimensions. The analysis tool utilized is EViews 13 software, with procedures including model selection tests such as the Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the best model among the Common Effect Model (CEM), Fixed Effect Model (FEM), or Random Effect Model (REM). Classical assumption tests, such as multicollinearity, heteroscedasticity, and autocorrelation, were performed to ensure the validity of the model, while hypothesis testing was conducted using t-statistics and F-statistics to evaluate both partial and simultaneous relationships between variables.

The validity of the data is ensured through several steps. Data triangulation was performed by utilizing various credible sources, such as audited financial reports. Variable reliability testing was conducted with precise calculations for variables like ROA and Altman Z-Score, while statistical validity was assessed through classical assumptions and regression model evaluations. Additionally, the study involved consultations with advisors and statistical experts to ensure that the analysis methods used were relevant and aligned with the research objectives. With these measures, the research results are expected to be valid, reliable, and free from bias.

RESULT

The results of this study's analysis include four main stages. First, in the descriptive statistical analysis, the data shows the distribution of the research variables' values, such as Return on Assets (ROA), Agency Costs, and the Composition of Independent Board of Commissioners, with statistical measures such as the mean, standard deviation, minimum, and maximum values. These statistics provide an initial overview of the data's characteristics, such as variations between companies in the sample.

Table 1. Descriptive Statistical Analysis

	Y	X1	X2	X3
Mean	8926.641	3343.409	17880.15	42679.32
Median	1948.005	2932.000	4713.000	40000.00
Maximum	664934.6	66876.00	884365.0	100000.0
Minimum	4.870000	-69937.00	2.000000	25000.00
Std. Dev.	62933.70	14734.17	75151.38	11071.31
Skewness	9.824129	0.040236	9.0356700	1.652.866
Kurtosis	9.800660	95.96086	8.725213	98.00294
Jarque-Bera	77645.80	381.6075	73988.43	360.5740
Probability	0.000000	0.000000	0.000000	0.000000

Source: Eviews 13 Output (2024)

Second, the data validity test is performed through classical assumption tests to ensure the regression model's validity. The multicollinearity test shows no perfect linear relationship between the independent variables, while the heteroscedasticity test ensures constant residual variance. The normality test shows that the residual distribution meets the assumptions of a good regression model.

Table 2. Multicollinearity Test

	X1	X2	X3
X1	1.000000	-0.082154	-0.110159
X2	-0.082154	1.000000	-0.093753
X3	-0.110159	-0.093753	1.000000

Source: Eviews 13 Output (2024)

The third stage is hypothesis testing, where panel data regression analysis using EViews software tests the effect of each independent variable on Financial Distress. The T-test results indicate that Agency Costs have a significant positive effect on Financial Distress, while ROA and the Composition of the Independent Board of Commissioners do not have a significant effect. The F-test shows that,

simultaneously, the independent variables affect the dependent variable. Finally, model fit testing is performed through the Chow and Hausman tests, which lead to the Fixed Effect Model (FEM) as the best model. This model indicates that differences between companies in the sample have an impact on Financial Distress. These results provide a solid foundation for understanding the factors affecting financial distress among energy companies listed on the Indonesia Stock Exchange.

Table 3. F-Test

R-squared	0.236510	Mean dependent var	8926.641
Adjusted R-squared	0.224703	S.D. dependent var	62933.70
S.E. of regression	55413.71	Akaike info criterion	24.70304
Sum squared resid	596E+11	Schwarz criterion	24.76947
Log likelihood	-2441.601	Hannan-Quinn criter.	24.72993
F-statistic	20.03208	Durbin-Watson stat	1.237615
Prob(F-statistic)	0.000000		

Source: Eviews 13 Output (2024)

Table 4. T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10720.49	16148.07	0.663886	0.5076
X1	0.314914	0.270779	1.162992	0.2463
X2	0.402297	0.052999	7.590617	0.0000
X3	-0.235239	0.360735	-0.652112	0.5151

Source: Eviews 13 Output (2024)

DISCUSSION

The hypothesis test results show that of the three independent variables analyzed, only Agency Costs have a significant effect on Financial Distress. The T-test shows a significant positive relationship between Agency Costs and Financial Distress, meaning that the higher the Agency Costs, the greater the risk of the company experiencing financial difficulties. In contrast, the variables Return on Assets (ROA) and the Composition of the Independent Board of Commissioners do not have a significant effect on Financial Distress. The F-test, which evaluates the effect of the variables simultaneously, indicates that the three independent variables together affect Financial Distress.

From an analytical perspective, these results suggest that Agency Costs play a crucial role in indicating the risk of a company's financial distress. An increase in Agency Costs, which includes administrative expenses and managerial incentives, may reflect inefficient resource consumption or conflicts of interest between agents and owners. Meanwhile, a low ROA might not be significant enough to influence Financial Distress due to other factors, such as liquidity and leverage, which are more dominant. Similarly, the insignificant effect of the Independent Board of Commissioners could be attributed to weak supervisory functions or their ineffectiveness in preventing financial risks.

The reasoning behind these results can be explained through agency theory. The conflict of interest between management (agents) and shareholders (principals) can trigger an increase in agency costs, which in turn burdens the company's finances. These high costs, if not balanced with improved performance or efficiency, can worsen the financial condition. Conversely, the low influence of ROA and the Independent Board of Commissioners might be due to inefficient asset management and weak corporate governance implementation.

This study is supported by the research of I.B. Prastiwi and Dewi (2019), which found that Agency Costs have a significant positive effect on Financial Distress. However, these results are not aligned with the study by Rahmawati (2016), which mentioned that the Independent Board of Commissioners has a significant negative effect on Financial Distress. This discrepancy may be due to differences in industry context, as this research focuses on the energy sector, which has unique financial dynamics and risks. Thus, the findings of this study offer new insights into the importance of managing Agency Costs to reduce the risk of financial distress in companies.

CONCLUSION AND RECOMMENDATION

Conclusion

This study concludes that, among the three independent variables analyzed, only Agency Costs have a significant positive effect on Financial Distress in energy companies listed on the Indonesia Stock Exchange during the period of 2019-2021. This means that the higher the Agency Costs, the greater the risk of the company experiencing financial difficulties. In contrast, the variables Return on Assets (ROA) and the Composition of the Independent Board of Commissioners do not have a significant effect on Financial Distress. These results indicate that managing Agency Costs is an important factor that companies need to focus on in order to mitigate financial risks.

This research has several implications that can contribute both practically and theoretically. Practically, these findings provide guidance for companies, particularly management and stakeholders, to pay more attention to managing Agency Costs as part of a financial risk mitigation strategy. Investors are also expected to use information about Agency Costs as an early indicator in assessing the financial stability of a company before making investment decisions. Theoretically, this study supports agency theory by emphasizing that conflicts of interest between agents and principals can negatively impact a company's financial condition. Additionally, this research enriches the literature on factors affecting Financial Distress in the energy sector, which has unique characteristics compared to other sectors.

For future research, it is recommended to include additional variables that may influence Financial Distress, such as leverage, liquidity, and sales growth, in order to gain a more comprehensive understanding of financial risk factors. Additionally, research could be conducted in other sectors outside of energy to test whether these results are generally applicable or specific to a particular sector. Future studies may also use panel data with a longer time frame or more complex analytical methods, such as dynamic analysis, to better capture changes in a company's financial condition over time.

For policymakers, particularly company management and investors, it is recommended to pay more attention to managing Agency Costs. Company management should implement effective control mechanisms to minimize conflicts of interest and inefficient expenditures. Investors can use Agency Costs as one of the indicators in assessing a company's financial risk before making investment decisions. Furthermore, regulatory authorities, such as the Indonesia Stock Exchange, may consider implementing stricter policies related to transparency in cost management and financial reporting, so that companies are more accountable in managing their financial risks.

Recommendation

Every study has its limitations, and this research is no exception. The limitations of this study lie in the use of secondary data from financial reports of energy companies listed on the Indonesia Stock Exchange for the 2019–2021 period, which may not fully reflect the internal operational conditions of the companies. The sample comprises 61 companies selected through purposive sampling, limiting the generalizability of the findings to all energy companies. Additionally, the variables used, such as profitability, agency costs, and the composition of independent commissioners, may not capture all factors influencing financial distress, such as macroeconomic conditions and regulatory changes. The Altman Z-Score model used to predict financial distress also has limitations, as it does not account for sector-specific financial indicators.

For future research, it is recommended to expand the scope of variables by including other factors, such as market conditions, technological innovations, or corporate social responsibility practices, to provide a more comprehensive analysis. Extending the study period could also help identify long-term trends and cyclical influences. Cross-sectoral comparisons could be conducted to examine differences in financial distress factors across industries. Additionally, employing alternative prediction models, such as the Zmijewski or Ohlson models, could strengthen the findings and offer different perspectives. Finally, incorporating qualitative approaches, such as interviews with company managers or policymakers, could reveal underlying factors that are not captured through quantitative data.

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