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ANALYSIS OF THE INFLUENCE OF BANK HEALTH LEVEL WITH RGEC METHOD ON FINANCIAL DISTRESS USING ALTMAN Z-SCORE METHOD

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ABSTRACT

Amidst economic and market dynamics, various business sectors, including banks, confront challenges that can lead to financial distress or potential bankruptcy. This distress is influenced by various factors, among which is the health level of banks. This research aims to provide empirical evidence on the influence of bank health level, assessed by the RGEC method, on financial distress. The independent variables include Risk Profile, Good Corporate Governance, Earnings, and Capital, while the Altman Z-score measures financial distress as the dependent variable. Focused on banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022, this research utilized a purposive sampling approach, selecting 29 samples and totalling 87 data sourced from financial statements and annual reports, which underwent analysis via multiple linear regression using Eviews version 12. The results show that the Risk Profile and Good Corporate Governance do not have a significant influence on financial distress. Meanwhile, Earnings and Capital have a positive and significant influence on financial distress. This research can serve as an early warning for management regarding bankruptcy risks and provide insights for banks regulators and policymakers to fortify risk management practices and strategize adjustments to mitigate the risk of financial distress.

Keywords: *Risk profile, good corporate governance, earnings, capital, RGEC, bank health, financial distress, Altman Z-score*

1. INTRODUCTION

The declaration of the Russia-Ukraine war by President Vladimir Putin on February 24th, 2022, significantly affected global peace and economic stability, particularly in Europe. This conflict disrupted the world's economic recovery, triggering a surge in inflation and severe disruptions in various industries worldwide, leading many businesses to encounter financial distress or even bankruptcy [1]. Indonesia experienced the repercussions, facing an upsurge in global oil prices and market uncertainty affecting exchange rates, along with disruptions in import-export trade flows [2].Responding to these economic challenges, several countries, notably the United States' Federal Reserve (The Fed), implemented policies like aggressive interest rate hikes to combat inflation [3]. However, these measures led to significant bank bankruptcies, including prominent ones like Silicon Valley Bank, Signature Bank, Silvergate Bank, and First Republic Bank, causing ripple effects across the U.S. banking sector [4]. Subsequently, Bank Indonesia (BI) conducted stress tests, highlighting Indonesia's banking system's resilience, attributed to smaller asset portfolios and diversified depositor structures [5]. Although Indonesia might not be significantly impacted by major U.S. bank failures, vigilance remains crucial as these events could influence investor perceptions, potentially leading to reduced capital funding [6].Amid these economic challenges, particularly the substantial interest rate hikes, the financial sector, especially banking, experienced declining credit growth and increased non-performing loans (NPL) and loan-to-deposit ratios (LDR) [7]. Without vigilant monitoring, these conditions could potentially lead to financial

distress for banking companies, necessitating a rapid assessment of their health to prevent insolvency and make informed strategic decisions for ongoing viability.

Bank Indonesia (BI) continually regulates the financial health of the banking sector, evolving its methods. The RGEC method, replacing the CAMELS approach since January 2012, evaluates Risk Profile, Good Corporate Governance (GCG), Earnings, and Capital, playing a crucial role in ensuring Indonesia's banking industry's resilience against economic pressures and maintaining financial stability [8]. Evaluating Risk Profile, particularly focusing on credit risk, becomes pivotal in predicting financial distress, as lower inherent risks signify reduced likelihood of such distress [9]. The implementation of Good Corporate Governance (GCG) in banks aims to create long-term value for stakeholders by applying principles of transparency, accountability, responsibility, independence, and fairness. It facilitates additional capital acquisition, reduces the cost of capital, enhances business performance, and significantly reduces the risk of financial distress [10], [11], [12].Earnings reflect a bank's capacity to generate profits from its core activities [13]. Higher earnings indicate a bank's ability to generate profits relative to assets or capital, reducing the likelihood of financial distress [14].Capital adequacy, another critical factor, assesses and manages funds, being crucial in addressing weak governance and risk management. Larger capital holdings indicate reduced potential for significant financial distress [8], [15].Using the RGEC method to assess the health level of a bank is an initial step in identifying the potential for financial distress. The information generated can serve as a warning indicator for the company and external parties to take appropriate action. This step contributes to reducing the risk of the company falling into liquidation or bankruptcy problems.

These factors have been the focus of numerous prior studies, unveiling several research gaps, including: Research [7] and [9] that states risk profile has a positive and significant influence on financial distress, whereas Research [8] and [16] indicates a negative influence of risk profile on financial distress. Research [8] and [16] shows that good corporate governance has a positive influence on financial distress. However, Research [9] and [12] suggest the opposite, stating that good corporate governance has negative influence on financial distress. Research [16] indicates that earnings exhibit a positive and significant influence on financial distress. In contrast, Research [7] and [9] contend that earnings have a negative and significant influence on financial distress. Meanwhile, Research [8] conclude that earnings do not affect financial distress. Research [16] indicates that capital has a positive and significant influence on financial distress. However, Research [7], [8], and [9] show that capital has a negative and significant influence on financial distress. Given the disparities in previous research results, this research on the analysis of the influence of bank health level on the potential occurrence of financial distress in banking companies listed on the Indonesia Stock Exchange aims to delve deeper and fill research gaps.

The signaling theory explains how individuals or organizations use signals or signs to communicate information about themselves to others. The core aim of signaling theory is to comprehend how signal senders influence the perceptions of signal receivers. According [17] and [18], signaling theory is applied to address asymmetric information issues, particularly in buyer-seller and investor-company scenarios. The theory helps investors obtain valuable information from signals provided by companies, influencing investment decisions [10].

Agency theory examines conflicts between agent-principal, examining differences in information, objectives, and incentives between the two that can lead to conflicts of interest. Driven by basic human characteristics such as a focus on personal needs, limitations in rationality, and a tendency to avoid risk and uncertainty, these factors trigger conflicts within agency relationships [19]. The

basic concept of agent and principal, introduced by [20] in the context of companies, depicts the owner as the principal who contracts the manager as the agent to manage assets, often with conflicting objectives. Decisions made by the agent do not always align with the interests of the principal due to the separation of ownership and control between them, emphasizing the importance of information provision in the decision-making process according to the agency theory. Agency theory asserts the importance of information provision as a monitoring mechanism for shareholders and investors [12].

Financial distress encompasses situations where an entity struggles to meet commitments to creditors, often preceding bankruptcy. [21] described financial distress as a condition that can lead to bankruptcy when an entity is unable to meet its debt obligations, and one of the key indicators in predicting potential financial distress is by using the cash flow to debt ratio. On the other hand, [22] depict financial distress as a stage of deterioration in financial condition that occurs before bankruptcy or liquidation.

Financial distress arises when a company faces challenges securing funds, leading to short-term liquidity issues that may reach insolvency [23]. It is a situation where a company's market value declines due to poor performance, causing significant financial impact and cash flow problems [24]. In essence, financial distress signals a serious condition where a company grapples with meeting financial obligations, facing a decline in market value due to accumulated losses from poor cash flow management, and insufficient working capital, posing a risk of bankruptcy.

Risk Profile is crucial in evaluating a bank's health, particularly in predicting financial distress resulting from excessive and problematic expenditures. Assessment of the risk profile encompasses eight types of risks: credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, and reputation risk [25]. This study emphasizes on credit risk, measured by the Non-Performing Loan (NPL) ratio, reflecting problematic loans as a percentage of the total credit portfolio [14]. [26] explain that credit risk is a possibility where a company faces difficulty in obtaining the expected payments within a specified period. Additionally, credit risk is also known as financing concentration risk and is an integral part of the assessment of inherent risk [27]. Bank Indonesia's threshold for NPL below 5% signifies a healthy bank. Signaling theory underscores the risk profile as a critical signal for the market and stakeholders, guiding informed decisions based on asset composition, credit quality, leverage, and financial ratios. This comprehensive risk assessment is essential for anticipating financial distress and maintaining a healthy banking sector. A higher risk profile correlates with a lower Altman Z-score [28], indicating increased potential for financial distress due to debtors' inability to meet obligations, resulting in defaulted loans and reduced bank income.
H1: Risk profile has a negative influence on financial distress.

The identification of potential financial distress can be anticipated through the evaluation of Good Corporate Governance (GCG), aimed at adding value to shareholders and stakeholders. GCG principles, as explained by agency theory, emphasize management control, financial transparency, sustainable growth, and shareholder rights protection to reduce the risk of financial distress caused by detrimental management behaviour or non-transparency in financial reporting [28]. In this study, attention is focused on the dimension of board of director size (DS) as one aspect of GCG. Decisions regarding board or director size must consider business complexity, industry, shareholder interests, and strategic company objectives. An increasing number of board members can enhance revenue, reduce financial risk, and strengthen the company's ability to face crises or

financial distress. Therefore, an increase in the number of board members is expected to have a positive impact on the Altman Z-score [12], [29].
H2: Good corporate governance has a positive influence on financial distress.

Earnings is a measure of a company's or bank's ability to generate profits from operational activities, playing a pivotal role in assessing financial health and potential distress. It encompasses factors such as profitability, income stability, earned income quality, and income trends [25]. In this study, earnings evaluated using the Return on Assets (ROA) ratio, indicating efficient asset utilization [6]. A higher ROA, within Bank Indonesia's recommended range of 1.25% to 1.5%, signifies strong profitability. ROA not only gauges profit management capability but also influences the Altman Z-score [16]. A higher ROA aligns with a greater Altman Z-score, indicating a diminished potential for financial problems or distress in the company or bank [11].
H3: Earnings has a positive influence on financial distress.

Assessing a bank's Capital is vital for financial health, as it supports stability and mitigates risks. Analysing a bank's capital adequacy level (CAR) is a crucial step. as if a bank is unable to cover its short-term obligations, there won't be funds available to serve as capital, impacting the bank's ability to settle debts. Sufficient capital is key to mitigating potential losses and financial distress. The Capital Adequacy Ratio (CAR), with a minimum of 8% set by Bank Indonesia, gauges a bank's ability to cover risks through its own capital [24]. Adequate capital helps mitigate losses and financial distress. As per signaling theory, evaluating Capital serves as a signal to the market about the bank's health and stability. A higher CAR level indicates a healthier company, reducing the risk of financial distress and enhances the Altman Z-score, instilling confidence in the bank's ability to manage risks and fostering trust [9], [14], [16].
H4: Capital has a positive influence on financial distress.

The conceptual framework for this study is depicted in the figure below:

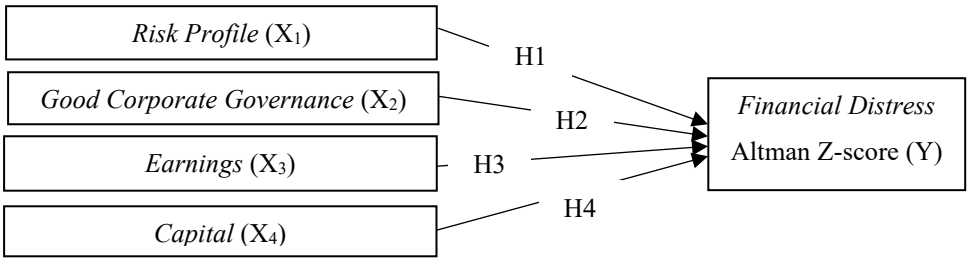

Figure 1. Conceptual Framework

2. RESEARCH METHOD

This research adopts a quantitative design to examine and test hypotheses related to a specific population or sample. The focus is on understanding the relationships between independent and dependent variables. Data collected through research instruments will undergo quantitative or statistical analysis. The quantitative data are sourced from secondary materials, including books, journals, and official websites such as the Indonesia Stock Exchange (www.idx.co.id) and IDN Financials (www.idnfinancials.com). The data involves panel data, with a primary emphasis on the dependent variable, financial distress, and independent variables: risk profile, good corporate governance, earnings, and capital. The study subjects consist of banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. Data collection and processing are performed

using Microsoft Office Excel, with statistical testing conducted using Econometric Views (EViews) version 12.

In this research, the population consists of 47 banking companies listed on the Indonesia Stock Exchange from 2020 to 2022. The sample selection method chosen is non-probability sampling, specifically purposive sampling. This method involves deliberately selecting samples based on predefined criteria, such as consecutively listed companies, companies publishing complete financial reports, consistent reporting as of December 31, using Indonesian Rupiah, and having relevant data for the research objectives. The goal is to ensure a representative sample aligned with the study's focus on the specified banking companies during the mentioned period.

The research variables and their corresponding indicators are outlined in Table 1. below:

Table 1. Operationalization of Variables

No.	Variables	Indicators
1.	Financial Distress	Z-score = (1,2 x WCTA) + (1,4 x RETA) + (3,3 x EBITTA) + (0,6 x MVTA) + (1 x TSTA)
2.	Risk Profile	NPL = (Non-Performing Loan / Total Loans) x 100%
3.	Good Corporate Governance	DS = number of BOD members during the period
4.	Earnings	ROA = (Profit Before Tax / Average Total Assets) x 100%
5.	Capital	CAR = (Tier 1 Capital + Tier 2 Capital) / Risk Weighted Assets x 100%

3. RESULTS AND DISCUSSIONS

By applying the purposive sampling method and adhering to the specified criteria, from a total of 47 companies, a sample of 29 banking companies is selected each year. The research spans a period of three years, resulting in a total sample size of 87 banking companies for this study.

The dependent variable, financial distress (FD), has a mean of 0.471649 and a median of 0.457169. During the specified time range, the maximum value recorded for the financial distress variable is 1.087617, and the minimum value is -0.573890. The smaller standard deviation compared to the mean indicates the insignificance of the gap between the lowest and highest data points in the sample.

Risk profile, proxied by NPL, has a mean of 0.014692, a maximum value of 0.054900, and a minimum value of 0.000400. The standard deviation of the risk profile variable is 0.012018, suggesting a small data spread as the standard deviation is lower than the mean.
Good corporate governance (GCG), proxied by the size of the board of directors (DS), has a mean of 6.965517. The maximum value for this variable is 12.00000, and the minimum is 2.000000. The standard deviation of the DS variable is 2.738393, which is lower than the mean, indicating no significant gap in the data.

Earnings, proxied by ROA, has a mean of 0.010513, a maximum value of 0.043100, and a minimum value of -0.038000. The standard deviation of this variable is 0.015629, indicating a significant variation in the sample.

Capital, proxied by CAR, has a mean of 0.312198. The maximum value obtained for this variable is 1.274200, while the minimum value is 0.111300. This variable also has a standard deviation

lower than the mean, indicating no significant gap between the lowest and highest CAR ratios in the sample.

	FD	NPL	DS	ROA	CAR
Mean	0.471649	0.014692	6.965517	0.010513	0.312198
Median	0.457169	0.010000	6.000000	0.010200	0.257000
Maximum	1.087617	0.054900	12.00000	0.043100	1.274200
Minimum	-0.573890	0.000400	2.000000	-0.038000	0.111300
Std. Dev.	0.309975	0.012018	2.738393	0.015629	0.173392
Skewness	-0.385331	1.423656	0.572796	-0.566018	2.850297
Kurtosis	3.800163	4.674285	2.274120	4.289960	14.40515
Jarque-Bera	4.473906	39.55026	6.667408	10.67744	589.3311
Probability	0.106783	0.000000	0.035661	0.004802	0.000000
Sum	41.03344	1.278200	606.0000	0.914600	27.16120
Sum Sq. Dev.	8.263241	0.012421	644.8966	0.021006	2.585578
Observations	87	87	87	87	87

After undergoing descriptive statistical testing, the next step is to conduct examinations to determine the appropriate research model. The purpose of this model selection is to identify the best panel data regression model for use in this study. Three panel data models are considered: Common Effect Model, Fixed Effect Model, and Random Effect Model.

Table 2. Likelihood Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.479008	(28,54)	0.0021
Cross-section Chi-square	71.909520	28	0.0000

Based on Table 2, the probability value shows 0.0000 which is below 5%, making the Fixed Effect Model as the suitable panel data model. Subsequently, the Hausman test will be conducted to compare the Fixed Effect Model with the Random Effect Model.

Table 3. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.586154	4	0.2323

Based on Table 3, the probability value shows 0.2323 which is above 5%, meaning the Random Effect Model is the suitable panel data model for this research. Subsequently, the Lagrange Multiplier test will be conducted to compare the Common Effect Model with the Random Effect Model.

Table 4. Lagrange Multiplier Test

	Cross-section	Time	Both
Breusch-Pagan	6.491627	1.458674	7.950300
	(0.0108)	(0.2271)	(0.0048)

Based on Table 4, the probability value of Breusch-Pagan shows a value of 0.0048, which is lower than 5%, meaning the Random Effect Model is the suitable panel data model for this research.

Based on the conclusions drawn from the three tests—Likelihood test, Hausman test, and Lagrange Multiplier test—conducted in the model selection process, it can be inferred that the Random Effect Model is the most suitable panel data model for use in this research.

After determining the most suitable data model, the next step is to test the assumptions underlying data analysis. These tests include classic assumptions such as normality, autocorrelation, heteroskedasticity, and multicollinearity. Additionally, significance tests (F-test), partial tests (t-test), multiple linear regression analysis, and coefficient of determination tests (adjusted R2) are also conducted.

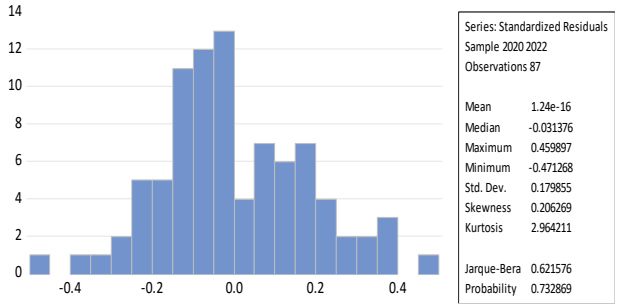

Figure 2. Normality Test

Based on Figure 2., it can be observed that the Jarque-Bera probability value (p-value) is 0.732869. This value exceeds the significance level of 0.05 (0.732869 > 0.05). Therefore, it can be concluded that the data is normally distributed.

Table 5. Autocorrelation Test

Weighted Statistics			
R-squared	0.548032	Mean dependent var	0.294065
Adjusted R-squared	0.525984	S.D. dependent var	0.218639
S.E. of regression	0.150530	Sum squared resid	1.858063
F-statistic	24.85716	Durbin-Watson stat	1.949706
Prob(F-statistic)	0.000000		

In the context of this research, the criteria for passing the autocorrelation test refer to the Durbin-Watson table and involve:

- Number of independent variables in the study (k) =4
- Number of research observations (n) = 87
- Obtained dl value = 1.5567
- Obtained du value = 1.7485
- 4−du = 4−1.7485 =2.2515
- The DW value must fall within the interval 1.7485 < DW < 2.2515

Based on Table 5 above, it can be observed that the Durbin-Watson statistic has a value of 1.949706, which falls within the range of 1.7485 < DW < 2.2515. Therefore, it can be concluded that there is no autocorrelation issue in this research model.

Table 6. Heteroskedasticity Test

F-statistic	**0.390309**	**Prob. F(4,82)**	**0.8150**
Obs*R-squared	1.625483	Prob. Chi-Square(4)	0.8042
Scaled explained SS	1.495043	Prob. Chi-Square(4)	0.8275

Based on Table , it is evident that the probability value (prob. Chi-Square) in the Obs*R-Squared row is 0.8042. This value is greater than 0.05, so it can be concluded that the data model in this research does not have heteroskedasticity issues (H0 is accepted).

Table 7. Multicollinearity Test

	FD	**NPL**	**DS**	**ROA**	**CAR**
FD	1.000000	-0.203995	0.241087	0.702076	0.232188
NPL	-0.203995	1.000000	-0.407071	-0.487871	0.482414
DS	0.241087	-0.407071	1.000000	0.448794	-0.399261
ROA	0.702076	-0.487871	0.448794	1.000000	-0.241414
CAR	0.232188	0.482414	-0.399261	-0.241414	1.000000

The common standard for testing multicollinearity is to ensure that correlation coefficients do not exceed 0.80, and the values of the Variance Inflation Factor (VIF) ideally do not exceed 10. Therefore, if the correlation coefficients are less than 0.80 or the VIF is below 10, then H0 is accepted, indicating that the research model does not suffer from multicollinearity issues, and vice versa.

Table 8. F-Test

Weighted Statistics			
R-squared	0.548032	Mean dependent var	0.294065
Adjusted R-squared	0.525984	S.D. dependent var	0.218639
S.E. of regression	0.150530	Sum squared resid	1.858063
F-statistic	24.85716	Durbin-Watson stat	1.949706
Prob(F-statistic)	0.000000		

Based on the table above (Table 8), it can be observed that the probability value of the F-statistic is 0.000000, which is below the significance level of 0.05. Therefore, it can be concluded that the independent variables risk profile, good corporate governance, earnings, and capital collectively have a significant influence on the dependent variable financial distress.

Table 9. t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075408	0.097594	0.772672	0.4419
NPL	-0.569739	2.216103	-0.257090	0.7978
DS	0.004966	0.010295	0.482352	0.6308
ROA	14.78756	1.836332	8.052769	0.0000
CAR	0.687270	0.145367	4.727833	0.0000

Based on Table 9 above, conclusions regarding the tested hypotheses in the study can be drawn as follows:

H1 = Risk profile does not have a significant influence on financial distress
From the t-test results above, the coefficient value of the independent variable risk profile proxied by non-performing loans (NPL) is -0.569739. Although this result indicates that the risk profile variable has a negative effect on financial distress measured by the Altman Z-score, the obtained probability value of 0.7978 shows that this significance value is greater than the significance level of 0.05. Therefore, the risk profile variable (NPL) does not have a significant influence on financial distress (Altman Z-score), and H1 is rejected.

H2 = Good Corporate Governance does not have a significant influence on financial distress
The second independent variable, good corporate governance (GCG) proxied by the size of the board of directors (DS), has a coefficient value of 0.004966, indicating that the good corporate governance variable has a positive effect on financial distress measured by the Altman Z-score. However, the probability value is 0.6308, which is greater than 0.05. Therefore, the good corporate governance variable (DS) does not have a significant influence on financial distress (Altman Z-score), and H2 is rejected.

H3 = Earnings has a significant positive influence on financial distress
The next independent variable, earnings proxied by return on assets (ROA), has a coefficient value of 14.78756, indicating that the earnings variable has a positive effect on financial distress measured by the Altman Z-score. The probability value is 0.0000, indicating that this significance value is smaller than 0.05. Therefore, the earnings variable (ROA) has a significant positive influence on financial distress (Altman Z-score), and H3 is accepted.

H4 = Capital has a significant positive influence on financial distress
The last independent variable, capital proxied by capital adequacy ratio (CAR), has a coefficient value of 0.687270. This value shows that the capital variable has a positive effect on financial distress measured by the Altman Z-score. The obtained probability value is 0.0000, reflecting a significance value smaller than 0.05. Therefore, the capital variable (CAR) has a significant positive influence on financial distress (Altman Z-score), and H4 is accepted.

Table 10. Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075408	0.097594	0.772672	0.4419
NPL	-0.569739	2.216103	-0.257090	0.7978
DS	0.004966	0.010295	0.482352	0.6308
ROA	14.78756	1.836332	8.052769	0.0000
CAR	0.687270	0.145367	4.727833	0.0000

Based on Table 10 above, the multiple linear regression equation for this study can be formulated as follows:

$$FD = 0.075408 - 0.569739\ NPL + 0.004966\ DS + 14.78756\ ROA + 0.687270\ CAR + \varepsilon$$

Description:

FD	=	*Financial Distress*	*DS*	=	*Board of Directors Size*
α	=	Coefficient	*ROA*	=	*Return on Assets*
$\beta 1$- $\beta 4$	=	Coefficient Regression Linear	*CAR*	=	*Capital Adequacy Ratio*
NPL	=	*Non-Performing Loan*	ε	=	*Error*

Table 11. Adjusted R^2 Test

Weighted Statistics			
R-squared	0.548032	Mean dependent var	0.294065
Adjusted R-squared	0.525984	S.D. dependent var	0.218639
S.E. of regression	0.150530	Sum squared resid	1.858063
F-statistic	24.85716	Durbin-Watson stat	1.949706
Prob(F-statistic)	0.000000		

From the results of the coefficient of determination test as listed in Table 11, it can be found that the Adjusted R-squared value is 0.525984 or 52.60%. This value indicates that 52.60% of the variation in the financial distress variable in this study can be explained by the independent variables risk profile, good corporate governance, earnings, and capital. The remaining 47.40% is explained by other factors not included in this study.

Based on the hypothesis testing and analysis results, the conclusions from this research are as follows:

No.	Hypothesis	Results
1	H1: Risk profile has a negative influence on financial distress.	Ha_1 is rejected
2	H2: Good corporate governance has a positive influence on financial distress.	Ha_2 is rejected
3	H3: Earnings has a positive influence on financial distress.	Ha_3 is accepted
4	H4: Capital has a positive influence on financial distress.	Ha_4 is accepted

The risk profile, proxied by non-performing loans (NPL), does not have a significant influence on financial distress measured by the Altman Z-score in banking companies listed on the IDX from 2020 to 2022. Thus, the formulated hypothesis H1 is rejected. This might occur because the NPL rate does not provide a comprehensive overview regarding the level of financial distress within the company. According to Article 7 of Bank Indonesia Regulation No. 13/1/PBI/2011 concerning the

Assessment of the Soundness Level of Commercial Banks, the assessment of the risk profile factor involves eight types of risks. Therefore, the risk profile variable still needs to be evaluated from other risk perspectives besides credit risk to obtain a more comprehensive understanding. The ongoing economic recovery phase from the impacts of the Covid-19 pandemic has also led to many borrowers being unable to fulfil their obligations to various banks, resulting in an insignificant difference in the NPL rates among the banking companies under study. This result aligns with previous studies conducted by [29] and [30], indicating that NPL do not have a significant impact on financial distress. However, contrasting results were found in studies conducted by [8] and [16], indicating that the risk profile factor proxied by NPL has a significant negative effect on financial distress. Additionally, other research conducted by [7] and [9] states that NPL has a significant positive impact on financial distress.

Good corporate governance, proxied by director size (DS), does not have a significant influence on financial distress measured by the Altman Z-score in banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. Therefore, the formulated hypothesis H2 that good corporate governance (DS) has a positive influence on financial distress (Altman Z-score) is rejected. These results may stem from the fact that the increase in the number of board members in the sampled companies did not show a significant rise each year. In fact, some banking companies did not increase the number of board members at all. This situation renders the influence of board size on the financial distress condition uncertain. For instance, at PT Bank Pembangunan Daerah Banten Tbk (BEKS), the number of board members was 7 in 2020, then decreased to 4 in 2021 and further reduced to 2 in 2022. Meanwhile, PT Bank Central Asia Tbk (BBCA) did not experience any increase in the number of board members from 2020 to 2022, maintaining the same count of 12 members. The findings of this research are consistent with previous studies conducted by [28] and [29], which state that board size does not have an influence on financial distress. However, they contrast with the results of [12], explaining that board size has a non-significant negative effect on financial distress, and the research by [31] stating that board size has a positive but non-significant impact on financial distress.

Earnings, proxied by return on assets (ROA), have a positive and significant influence on financial distress measured by the Altman Z-score in banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. Thus, the formulated hypothesis H3 that earnings (ROA) has a positive influence on financial distress (Altman Z-score) is accepted. This result indicates that companies with high earnings levels tend to have high Z-scores as well, indicating a lower potential for financial distress. High earnings levels reflect the company's ability to generate profits optimally from its operational activities, thereby categorizing the company's financial health as good. The findings of this research align with the results of studies conducted by [16] and [23], concluding that Return on Assets (ROA) has a positive and significant impact on financial distress. However, they differ from these findings, as per the research by [7], [24], and [31], which state that ROA has a negative and significant effect on financial distress. Additionally, studies by [27] and [28] claim that ROA has no significant impact on financial distress.

Capital, proxied by the capital adequacy ratio (CAR), has a positive and significant influence on financial distress measured by the Altman Z-score in banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. Therefore, the formulated hypothesis H4 that capital (CAR) has a positive influence on financial distress (Altman Z-score) is accepted. This study indicates that companies with adequate capital adequacy tend to have good financial health, demonstrated by high Z-scores, thereby resulting in a lower risk of financial distress. Adequate capital adequacy reflects the company's ability to manage its capital, thereby averting potential asset devaluation due to problematic assets. Effective capital management can also help address potential risks in the future. The findings of this research are consistent with studies conducted by [16], [23], [31], and [32], explaining that Capital Adequacy Ratio (CAR) has a positive and significant impact on financial distress. However, they contradict research conducted by [7], [8], and [9], stating that CAR has a significant negative effect on financial distress. Conversely, research by [14], [24], and [28] indicates that CAR does not have a significant impact on financial distress.

4. CONCLUSIONS AND SUGGESTIONS

The primary objective of this research is to analyse the influence of risk profile, good corporate governance, earnings, and capital on financial distress, measured using the Altman Z-score. Upon rigorous hypothesis testing and results analysis presented in prior sections, the research findings indicate that risk profile and good corporate governance do not have a significant influence on financial distress, whereas earnings and capital have a positive and significant influence on financial distress. Furthermore, the independent variables risk profile, good corporate governance, earnings, and capital collectively have a significant influence on the dependent variable financial distress. These findings may encourage organizations and policymakers to prioritize strategic adjustments, strengthen earnings management and ensure capital adequacy in order to mitigate the financial distress risks.

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