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THE EFFECT OF CORPORATE GOVERNANCE AND CORPORATE SOCIAL RESPONSIBILITY ON FINANCIAL DISTRESS: THE MODERATING ROLE OF PROFITABILITY

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Abstract

This study examines the effects of independent commissioners, audit committee, and Corporate Social Responsibility on financial distress, with profitability as a moderating variable. The study focuses on property and real estate companies listed on the Indonesia Stock Exchange during 2022–2024. Using a quantitative approach, secondary data were collected from annual reports, financial statements, and sustainability reports. The sample consisted of 52 companies selected through purposive sampling, resulting in 156 observations. Financial distress was measured using the Altman Z-Score and analyzed using binary logistic regression with interaction terms. The results show that audit committee and CSR significantly reduce financial distress, whereas independent commissioners have no significant effect. Profitability moderates the relationships between independent commissioners and financial distress as well as between CSR and financial distress, but does not moderate the relationship between audit committee and financial distress. These findings indicate that effective monitoring through audit committees and stronger CSR disclosure contribute to reducing financial distress risk, while profitability enhances the effectiveness of certain governance and sustainability mechanisms. This study contributes to the financial distress literature and provides implications for managers, investors, creditors, and regulators in managing financial distress risk within the property and real estate sector.

Keywords: *Financial Distress, Good Corporate Governance, Corporate Social Responsibility, Profitability*

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1. Introduction

Financial distress is a condition in which a company experiences financial difficulties and is unable to fulfill its financial obligations. If not properly

managed, financial distress may lead to bankruptcy, delisting, and business failure (Habib et al., 2020). Therefore, identifying factors can mitigate financial distress risk is important for companies, investors, creditors, and regulators.

Table 1. Average Economic Sector Growth in Indonesia 2022–2024

Business Sector	Growth Rate
Healthcare	3.70%
Basic Materials	3.40%
Financials	3.80%
Transportation & Logistic	14.20%
Technology	8.10%
Consumer Non-Cyclicals	3.50%
Industrials	4.00%
Energy	3.30%
Consumer Cyclicals	6.20%
Infrastructure	3.20%
Properties & Real Estate	1.80%

Source: Badan Pusat Statistik, processed by author, 2026.

Table 1 shows that Indonesia's economy experienced a positive recovery following the COVID-19 pandemic. Gross Domestic Product (GDP) grew by 5.31% in 2022, 5.05% in 2023, and 5.03% in 2024. Nevertheless, economic recovery was not evenly distributed across industries. As presented in Table 1, the property and real estate sector recorded the lowest average growth rate among major economic sectors during 2022–2024, at only 1.80%, substantially below sectors such as transportation and logistics (14.20%) and technology (8.10%) (Badan Pusat Statistik, 2025).

Table 2. Property and Real Estate Companies Experiencing Trading Suspension During 2022–2024

No.	Ticker Symbol	Company Name	Suspension Period (Months)
1	BIKA	PT Binakarya Jaya Abadi Tbk.	18
2	CPRI	PT Capri Nusa Satu Properti Tbk.	30
3	GAMA	PT Aksara Global Development Tbk.	30
4	MTSM	PT Metro Realty Tbk.	11
5	PLIN	PT Plaza Indonesia Realty Tbk.	11
6	POLL	PT Pollux Properties Indonesia Tbk.	18
7	PPRO	PT PP Properti Tbk.	14

Table 2 shows that several property and real estate companies experienced trading suspensions ranging from 11 to 30 months. Prolonged trading suspension

generally reflects serious concerns regarding a company's financial condition, compliance, or business continuity and may increase the risk of delisting. Financial pressure within the sector was further evidenced by the debt restructuring process of PT PP Properti Tbk. through the Suspension of Debt Payment Obligations and bankruptcy proceedings involving PT Forza Land Indonesia Tbk. and PT Mas Murni Indonesia Tbk (IDX Channel, 2025; Mahkamah Agung, 2024; Mahkamah Agung, 2022). These conditions indicate that the property and real estate sector remains vulnerable to financial distress despite the broader economic recovery.

Good Corporate Governance is one factor that may influence financial distress. According to Agency Theory, conflicts of interest may arise between shareholders as principals and managers as agents due to information asymmetry and differences in objectives (Jensen & Meckling, 1976). Corporate governance mechanisms, such as independent commissioners and audit committees, are expected to strengthen monitoring functions, improve transparency, and reduce agency conflicts. Effective governance can enhance managerial decision quality and reduce the likelihood of financial distress.

Corporate Social Responsibility (CSR) plays an important role in reducing financial distress risk. In the Industrial Revolution 4.0 era, corporate responsibilities are no longer limited to maximizing shareholder wealth but also encompass broader responsibilities toward society and the environment (Dwicahyanti & Priono, 2021). From the perspective of Signaling Theory, CSR disclosure serves as a positive signal regarding a firm's commitment to sustainability, ethical business practices, and long-term viability (Spence, 1973). Companies with broader CSR disclosure may enhance their reputation, increase stakeholder confidence, and strengthen relationships with external stakeholders, thereby reducing financial distress risk (Farooq et al., 2024; Tran & Thảo, 2024).

Table 3. Summary of Previous Studies and Research Gaps

Authors	Variables	Sample	Findings	Research Gap
Nurzahara & Pratomo (2021)	Independent Commissioners, Audit Committee, Financial Distress	Textile and Garment Companies	Independent commissioners reduce financial distress, while audit committee increases financial distress.	Different industry; profitability not examined.

Authors	Variables	Sample	Findings	Research Gap
Humairoh & Nurulita (2022)	Audit Committee, Institutional Ownership, Financial Distress	Manufacturing Companies	Audit committee has no significant effect on financial distress.	Different industry; profitability not examined.
Tarighi et al. (2022)	CSR, Financial Distress	Tehran Stock Exchange Companies	CSR disclosure increases financial distress risk.	Different country; profitability not examined.
Koohi et al. (2022)	CSR Performance, Financial Distress	Tehran Stock Exchange Companies	CSR alone does not affect financial distress.	Profitability not examined as moderator.
Begum et al. (2023)	Corporate Governance, Financial Distress	Pharmaceutical Companies	Corporate governance reduces financial distress risk.	Governance examined broadly; independent commissioners and audit committee not tested separately.
Febriyanti & Khalifaturofi'ah (2023)	Audit Committee, Board of Directors, Financial Distress	Manufacturing Companies	Audit committee negatively affects financial distress.	Different industry; profitability not examined.
Emilia & Windijarto (2023)	Corporate Governance, Financial Distress	Banking Companies	Governance reduces financial distress before and during crisis periods.	Governance examined broadly; profitability not tested as moderator.
Farooq et al. (2024)	CSR, Corporate Governance, Financial Distress	Pakistan Listed Companies	CSR and governance reduce financial distress risk.	Different country; profitability not examined as moderator.
Fachrunnisa et al. (2024)	GCG, CSR, Financial Distress	Basic Materials Companies	GCG and CSR do not affect financial distress.	Different industry; profitability not examined.
Tran & Thảo (2024)	CSR, Financial Distress	Manufacturing Companies	CSR reduces financial distress risk.	Governance variables not included; profitability not examined.
Nasution & Ratmono (2024)	CSR, Profitability (Moderator), Financial Distress	State-Owned Enterprises	Profitability strengthens the negative effect of CSR on financial distress.	Independent commissioners and audit committee not examined.
Alzaira & Wardoyo (2025)	GCG, CSR, Financial Distress	Property and Real Estate Companies	Independent commissioners and CSR reduce financial distress.	Audit committee and profitability moderator not examined.

Authors	Variables	Sample	Findings	Research Gap
Phania (2025)	GCG, Profitability (Moderator), Financial Distress	Healthcare Companies	Profitability strengthens the effect of governance on financial distress.	Governance measured as composite variable; independent commissioners and audit committee not examined separately.

Table 3 summarizes previous studies examining the relationships among corporate governance, corporate social responsibility, profitability, and financial distress. The findings reveal several inconsistencies regarding the determinants of financial distress**.** Several studies found that independent commissioners and audit committees are effective in reducing financial distress risk (Febriyanti & Khalifaturofi'ah, 2023; Nurzahara & Pratomo, 2021), while other studies reported insignificant results (Humairoh & Nurulita, 2022). Similar inconsistencies are also found in the relationship between corporate social responsibility and financial distress. Farooq et al. (2024), Tran & Thảo (2024), and Alzaira & Wardoyo (2025) found that corporate social responsibility reduces financial distress risk, whereas Tarighi et al. (2022) and Koohi et al. (2022) reported different findings. These mixed results indicate that the effectiveness of corporate governance mechanisms and corporate social responsibility in mitigating financial distress remains inconclusive.

Previous studies have predominantly focused on manufacturing, banking, healthcare, pharmaceutical, and state-owned enterprises, while limited evidence is available from the property and real estate sector. This limitation is important because property and real estate companies are characterized by high capital intensity, long project completion periods, substantial dependence on external financing, and strong sensitivity to macroeconomic fluctuations. These characteristics may increase financial vulnerability and influence the effectiveness of corporate governance mechanisms and corporate social responsibility in reducing financial distress risk.

Another limitation of prior studies concerns the role of profitability. Although Nasution & Ratmono (2024) and Phania (2025) demonstrate that profitability may strengthen the effectiveness of corporate governance and corporate social responsibility in reducing financial distress, profitability has generally been examined either as a control variable or as a moderator of aggregate governance measures. Limited studies have specifically investigated whether profitability moderates the effects of independent commissioners, audit

committees, and corporate social responsibility on financial distress. Previous studies have not simultaneously examined independent commissioners, audit committees, and corporate social responsibility as determinants of financial distress while incorporating profitability as a moderating variable in the property and real estate sector. Accordingly, this study contributes to the literature by examining the moderating role of profitability in the relationships between independent commissioners, audit committees, corporate social responsibility, and financial distress among property and real estate companies listed on the Indonesia Stock Exchange during the post-pandemic recovery period.

Independent commissioners are expected to strengthen the supervisory function of the board because they have no affiliation with management or controlling shareholders. This independence enables them to monitor managerial decisions more objectively and reduce agency conflicts that may lead to financial distress. Previous studies by Alzaira & Wardoyo (2025), Begum et al. (2023), and Nurzahara & Pratomo (2021)show that independent commissioners can reduce financial distress risk.

H1: Independent commissioners have a negative significant effect on financial distress.

The audit committee supports the board of commissioners in supervising financial reporting, internal control, and audit processes. An effective audit committee can improve the reliability of financial information, reduce misstatement risk, and strengthen risk control. Through this monitoring role, the audit committee is expected to identify financial problems earlier and reduce the probability of financial distress. Begum et al. (2023) and Febriyanti & Khalifaturofi'ah (2023) found that the audit committee has a significant role in reducing financial distress risk.

H2: Audit committee has a negative significant effect on financial distress.

Corporate Social Responsibility reflects the company's commitment to stakeholders and sustainable business practices. Companies with better CSR disclosure tend to have stronger stakeholder relationships, better reputation, and lower social, environmental, and regulatory risks. These conditions may increase stakeholder trust and support business sustainability, thereby reducing the probability of financial distress. Alzaira & Wardoyo (2025), Farooq et al. (2024), and Tran & Thảo (2024) found that CSR has a negative effect on financial distress.

H3: Corporate Social Responsibility has a negative significant effect on financial distress.

Profitability is expected to strengthen the effect of independent commissioners on financial distress. Independent commissioners perform monitoring and oversight functions to reduce agency conflicts and improve managerial decision-making. However, the effectiveness of their recommendations depends on the firm's ability to implement corrective actions. Companies with higher profitability generally possess greater financial flexibility, allowing management to respond more effectively to recommendations provided by independent commissioners. Profitable firms are also less constrained by liquidity pressures, enabling governance mechanisms to function more optimally. Conversely, in firms with low profitability, managerial attention is often directed toward short-term financial survival, which may limit the effectiveness of oversight activities. Empirical evidence from Phania (2025) indicates that profitability strengthens the role of corporate governance in reducing financial distress. Therefore, profitability is expected to strengthen the negative effect of independent commissioners on distress risk.

H4: Profitability moderates the effect of independent commissioners on financial distress.

Profitability may also influence the relationship between audit committee and financial distress. The primary role of the audit committee is to oversee financial reporting quality, internal control systems, compliance, and risk management processes. Companies with higher profitability generally have more resources to invest in stronger internal control systems, external audit quality, risk management infrastructure, and accounting information systems. These conditions enable audit committees to perform their monitoring responsibilities more effectively and identify potential financial problems at an earlier stage. In contrast, firms experiencing low profitability may face resource limitations that reduce the effectiveness of audit committee oversight despite the existence of formal governance structures. This argument is consistent with findings from Phania (2025), which suggest that profitability enhances the effectiveness of governance mechanisms in reducing financial distress. Therefore, profitability is expected to strengthen the negative effect of audit committees on financial distress.

H5: Profitability moderates the effect of audit committee on financial distress.

Profitability is expected to strengthen the effect of Corporate Social Responsibility on financial distress. Unlike governance mechanisms, CSR implementation requires substantial financial resources, long-term commitment, and continuous stakeholder engagement. Companies with higher profitability have greater capacity to allocate funds for environmental, social, and community programs and to maintain consistent CSR disclosure. As a result, CSR activities are more likely to generate stakeholder trust, enhance corporate reputation, and reduce operational and reputational risks. Conversely, firms with low profitability may face difficulties in sustaining CSR initiatives, limiting their ability to obtain the strategic benefits associated with CSR implementation. Nasution & Ratmono (2024) found that company characteristics, including profitability, strengthen the negative effect of CSR on financial distress. Therefore, profitability is expected to strengthen the negative effect of Corporate Social Responsibility on financial distres.

H6: Profitability moderates the effect of Corporate Social Responsibility on financial distress.

This study aims to examine the effect of independent commissioners, audit committee, and Corporate Social Responsibility on financial distress, with profitability as a moderating variable. This study focuses on property and real estate companies listed on the Indonesia Stock Exchange during the 2022–2024 period. Theoretically, this study contributes to the development of Agency Theory and Signaling Theory by explaining how profitability influences the effectiveness of corporate governance mechanisms and Corporate Social Responsibility in reducing financial distress. Practically, this study provides insights for company management, investors, and creditors in assessing financial distress risk by considering corporate governance mechanisms, Corporate Social Responsibility disclosure, and profitability.

2. Research Method

This study employs a quantitative approach because it examines the relationship among variables using numerical data and statistical analysis (Creswell, 2023). The object of this study is property and real estate companies listed on the Indonesia Stock Exchange during the 2022–2024 period. This sector

was selected because property and real estate companies are asset-intensive, rely on long-term financing, and are sensitive to changes in market demand and economic conditions, making them relevant for financial distress analysis.

The study uses secondary data obtained from annual reports, financial statements, and sustainability reports published on the Indonesia Stock Exchange website and the official websites of each company. Secondary data were used because the required information was obtained from published company documents (Sugiyono, 2023). The population consists of 92 property and real estate companies listed on the Indonesia Stock Exchange during 2022–2024. The sample was selected using purposive sampling, which determines samples based on specific criteria relevant to the research objectives (Sugiyono, 2023). Based on the established criteria, 52 companies were selected, resulting in 156 observations.

Table 4. Sample Selection Criteria

Criteria	Total
Property and real estate companies listed on the Indonesia Stock Exchange during the 2022–2024 period	92
Property and real estate companies that did not publish annual reports and sustainability reports on the company website or IDX website during the 2022–2024 period and/or were not presented in rupiah	(26)
Property and real estate companies that did not disclose complete data according to the variables used in this study	(14)
Total companies meeting the criteria	52
Research period	3
Total research observations	156

Source: Data processed by author, 2026.

Financial distress is used as the dependent variable and is measured using the Altman Z-Score model developed by Altman (1968). The model is calculated using the following formula:

$$Z - Score = 1{,}2X1 + 1{,}4X2 + 3{,}3X3 + 0{,}6X4 + 1{,}05X5$$

where X_1 represents Working Capital divided by Total Assets, X_2 represents Retained Earnings divided by Total Assets, X_3 represents Earnings Before Interest and Taxes divided by Total Assets, X_4 represents Market Value of Equity divided by Book Value of Total Liabilities, and X_5 represents Sales divided by Total Assets. Following Altman (1968), companies with a Z-Score < 1.81 are classified as financial distress (1), whereas companies with a Z-Score ≥ 1.81 are classified as non-financial distress (0). The Altman Z-Score was selected because

it is one of the most widely used models for predicting financial distress and has been extensively applied in studies of publicly listed companies. Furthermore, the Altman Z-Score has been widely applied in studies examining financial distress among Indonesian listed companies, including firms in asset-intensive industries such as property and real estate (Eduard Ary Binsar Naibaho & Adeline Natasya, 2023).

Good Corporate Governance is measured using two proxies, namely independent commissioners and audit committees. Independent commissioners are measured by the proportion of independent commissioners to the total board of commissioners. Audit committee is measured by the number of audit committee members. This proxy is frequently used in previous studies because the number of committee members reflects the monitoring capacity available to oversee financial reporting, internal control, and auditing processes (Rahayu & Yendrawati, 2025). However, this measurement focuses on the quantitative aspect of the audit committee and does not capture committee quality, expertise, independence, or meeting frequency.

Corporate Social Responsibility is measured using the Corporate Social Responsibility Disclosure Index (CSRDI) based on the Global Reporting Initiative (GRI) Standards 2021, consisting of 117 disclosure items. Each disclosed item receives a score of 1, while undisclosed items receive a score of 0. The CSRDI score is calculated using the following formula:

$$CSRDI = \frac{\sum XIJ}{Nj}$$

Where Xij represents the disclosure score for each item and Nj represents the total disclosure items expected to be disclosed.

Profitability is used as a moderating variable and is measured using Return on Assets (ROA), calculated as net income after tax divided by total assets.

This study does not include additional control variables such as leverage, liquidity, firm size, sales growth, or cash flow. The research focuses on examining the direct effects of independent commissioners, audit committee, and corporate social responsibility, as well as the moderating role of profitability, on financial distress. The exclusion of control variables was intended to maintain model parsimony and provide a clearer assessment of the relationships among the main variables under investigation. Nevertheless, the absence of control variables may

increase the possibility of omitted variable bias because financial distress can also be influenced by other firm-specific characteristics (Gujarati, 2021; Wooldridge, 2019). Therefore, the findings of this study should be interpreted within the context of the variables included in the research model.

Table 5. Operational Definition of Variables

Variable	Operational Definition	Scale	Indicator
Financial Distress (Y)	A company's declining financial condition before bankruptcy.	Nominal	$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.05X_5$ a. $Z < 1.81$ = Financial Distress (1) b. $Z \geq 1.81$ = Non-Financial Distress (0) Source: Altman (1968) Eduard Ary Binsar Naibaho & Adeline Natasya (2023)
Independent Commissioners (X1)	Independent members of the board who supervise management objectively.	Ratio	Number of Independent Commissioners ÷ Total Board of Commissioners × 100% Source: Masriani et al. (2022)
Audit Committee (X2)	Committee assisting the board in supervising financial reporting, audit, and internal control.	Ratio	Number of audit committee members Source: Rahayu & Yendrawati (2025)
Corporate Social Responsibility (X3)	Disclosure of corporate responsibility in economic, social, and environmental aspects.	Ratio	CSRDI = ΣXij ÷ Nj; based on GRI Standards 2021 (117 items) Source: Rahayu & Yendrawati (2025)
Profitability (M)	Company's ability to generate profit from total assets.	Ratio	ROA = Net Income After Tax ÷ Total Assets × 100% Source: Jessie & Tannia (2024)

Source: Data processed by author, 2026

The data were analyzed using descriptive statistics and binary logistic regression with interaction terms using IBM SPSS Statistics version 31. Descriptive statistics were employed to describe the characteristics of the research data through minimum, maximum, mean, and standard deviation values. Binary logistic regression was selected because the dependent variable, financial distress, is measured as a dummy variable. This method is appropriate

for examining the probability of a company experiencing financial distress based on governance mechanisms, corporate social responsibility, profitability, and interaction variables (Ghozali, 2021).

The moderating effect of profitability was examined using interaction terms, as financial distress is measured as a binary variable and therefore does not meet the assumptions of linear moderated regression analysis.

The feasibility of the model was evaluated using multicollinearity testing, Hosmer and Lemeshow's Goodness-of-Fit Test, Overall Model Fit, Nagelkerke R Square, Omnibus Test, Classification Table, and Wald Test (Ghozali, 2021). The interaction terms consisted of Independent Commissioners × Profitability, Audit Committee × Profitability, and Corporate Social Responsibility × Profitability. These interaction variables were incorporated into the logistic regression model to determine whether profitability strengthens or weakens the effects of independent commissioners, audit committees, and corporate social responsibility on financial distress.

The research model is formulated as follows:

$$Ln = \left(\frac{FD}{1 - FD}\right) = \alpha + \beta^1 KI + \beta^2 KA + \beta^3 CSR + \beta^4 ROA + \beta^5 KI_{ROA} + \beta_6 KA_ROA + \beta_7 CSR_ROA + e$$

where FD represents Financial Distress, IC represents Independent Commissioners, AC represents Audit Committee, CSR represents Corporate Social Responsibility, ROA represents Profitability, IC_ROA represents the interaction between Independent Commissioners and Profitability, AC_ROA represents the interaction between Audit Committee and Profitability, CSR_ROA represents the interaction between Corporate Social Responsibility and Profitability, and e represents the error term.

3. Result and Discussion

Descriptive Statistics

Table 6. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Independent Commissioners	0.2500	1.0000	0.4335	0.1132
Audit Committee	3	4	3.41	0.493

Variable	Minimum	Maximum	Mean	Std. Deviation
Corporate Social Responsibility	0.2222	1.0000	0.8594	0.1920
Profitability	-0.1869	0.4283	0.0212	0.0724

Source: SPSS Processed Data (Version 31)

According to Table 6, independent commissioners have a mean value of 0.4335, indicating that the average proportion of independent commissioners in the sample companies is 43.35%. The audit committee has a mean value of 3.41, showing that most companies have three to four audit committee members. Corporate social responsibility has a mean value of 0.8594, indicating that the average CSR disclosure level is relatively high. Meanwhile, profitability has a mean value of 0.0212, which means that the average ability of companies to generate profit from total assets is 2.12%. The negative minimum value of profitability indicates that some companies experienced losses during the observation period.

Table 7. Financial Distress Frequency Distribution

Category	Observations	Percentage
Non-financial distress	24	15.4%
Financial distress	132	84.6%
Total	156	100.0%

Source: SPSS Processed Data (Version 31)

Table 7 shows that 24 observations, or 15.4%, are classified as non-financial distress, while 132 observations, or 84.6%, are classified as financial distress. This result indicates that most property and real estate companies in the sample experienced financial distress during the 2022–2024 period.

Logistic Regression Model Test

Before conducting hypothesis testing, a multicollinearity test was performed to ensure that there was no high correlation among independent variables and interaction variables.

Table 8. Multicollinearity Test

Variable	Tolerance	VIF
Independent Commissioners	0.976	1.024
Audit Committee	0.929	1.077
Corporate Social Responsibility	0.871	1.148
Profitability	0.972	1.029
Independent Commissioners_ROA	0.808	1.237
Audit Committee_ROA	0.768	1.302

Corporate Social Responsibility_ROA	0.813	1.230

Source: SPSS Processed Data (Version 31)

Based on Table 8, all variables have tolerance values above 0.10 and VIF values below 10. Therefore, the model is free from multicollinearity and can be used for further logistic regression analysis.

Table 9. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	2.009	8	0.981

Source: SPSS Processed Data (Version 31)

The Hosmer and Lemeshow Test in Table 9 shows a significance value of 0.981, which is higher than 0.05. This indicates that the logistic regression model fits the observed data and is feasible for further analysis.

Table 10. Overall Model Fit

Description	Value
Initial -2 Log Likelihood	133.948
Final -2 Log Likelihood	60.330

Source: SPSS Processed Data (Version 31)

Table 10 shows that the -2 Log Likelihood value decreases from 133.948 to 60.330. This decrease indicates that the final model, which includes independent variables, profitability, and interaction variables, is better than the initial model.

Table 11. Model Summary

-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
60.330	0.376	0.653

Source: SPSS Processed Data (Version 31)

Table 11 shows a significance value of 0.000, which is lower than 0.05. This indicates that independent commissioners, audit committee, corporate social responsibility, profitability, and interaction variables simultaneously affect financial distress.

Table 12. Classification Table

Observed	Predicted Non-financial Distress	Predicted Financial Distress	Percentage Correct
Non-financial distress	18	6	75.0%
Financial distress	5	127	96.2%

Observed	Predicted Non-financial Distress	Predicted Financial Distress	Percentage Correct
Overall Percentage			92.9%

Source: SPSS Processed Data (Version 31)

Based on Table 12, the model correctly predicts 75.0% of non-financial distress observations and 96.2% of financial distress observations. Overall, the classification accuracy is 92.9%, indicating that the logistic regression model has good predictive ability.

Hypothesis testing and discussion

Table 13. Logistic Regression Coefficient Test

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
IC	-2.794	2.490	1.259	1	0.262	0.061
AC	-3.419	1.317	6.738	1	0.009	0.033
CSR	-0.435	0.132	10.925	1	0.001	0.647
ROA	-0.742	0.195	14.434	1	0.000	0.476
IC_ROA	-2.130	0.893	5.686	1	0.017	0.119
AC_ROA	0.335	0.210	2.548	1	0.110	1.397
CSR_ROA	0.038	0.015	6.553	1	0.010	1.039
Constant	7.388	1.701	18.862	1	0.000	1615.797

Source: SPSS Processed Data (Version 31)

Based on Table 13, the logistic regression equation is formulated as follows:

$$Ln = \left(\frac{FD}{1-FD}\right) = 7{,}388 - 2{,}794KI - 3{,}419KA - 0{,}435CSR - 0{,}742ROA - 2{,}130(KI \times ROA) + 0{,}335(KA \times ROA) + 0{,}038(CSR \times ROA) + \varepsilon$$

Independent commissioners have a significance value of 0.262, which exceeds 0.05, indicating that this variable does not affect financial distress. Meanwhile, audit committee and corporate social responsibility have significance values of 0.009 and 0.001, respectively, indicating that both variables significantly affect financial distress. The regression coefficients for audit committee and corporate social responsibility are negative, suggesting that higher audit committee effectiveness and broader corporate social responsibility disclosure are associated with a lower probability of financial distress. The interaction variables IC_ROA and CSR_ROA are significant, with significance values of 0.017 and 0.010, respectively, indicating that profitability moderates the relationship between independent commissioners and financial distress as well as the relationship between corporate social responsibility and

financial distress. AC_ROA has a significance value of 0.110, indicating that profitability does not moderate the relationship between audit committee and financial distress.

The distribution of the dependent variable is an important consideration when interpreting the regression results. A total of 84.6% of the observations are classified as financial distress, whereas only 15.4% are classified as non-financial distress. This imbalance may potentially affect the predictive performance of binary logistic regression models because the model tends to classify observations belonging to the majority category more accurately than those in the minority category.

The robustness of the model was evaluated using several diagnostic tests, including the Hosmer and Lemeshow Goodness-of-Fit Test, Omnibus Test, Nagelkerke R Square, and Classification Table. The results indicate that the model remains statistically acceptable and demonstrates satisfactory classification performance in explaining the probability of financial distress. Nevertheless, the findings should be interpreted with caution because the dominance of financial distress observations may increase the risk of classification bias.

The observed imbalance reflects the actual condition of the property and real estate sector during the post-pandemic recovery period, where a substantial proportion of firms experienced financial difficulties. Future studies may employ balanced sampling techniques, resampling procedures, or alternative classification methods to further assess the robustness of the findings.

The Effect of Independent Commissioners on Financial Distress

The results indicate that independent commissioners do not significantly affect financial distress. This finding suggests that the presence of independent commissioners in property and real estate companies is not sufficient to reduce the likelihood of financial distress. According to Agency Theory, independent commissioners are expected to mitigate agency conflicts by monitoring managerial decisions and ensuring that management acts in the best interests of shareholders (Jensen & Meckling, 1976). However, the findings indicate that the monitoring role of independent commissioners may

not be fully effective in preventing financial difficulties within the property and real estate sector.

One possible explanation relates to the characteristics of property and real estate companies, which generally operate with high capital intensity, long project completion periods, and substantial dependence on external financing. Financial distress in this sector is often influenced by macroeconomic conditions, declining property demand, financing constraints, and project delays. Under such circumstances, the supervisory role of independent commissioners may have limited influence on financial outcomes because financial pressures originate primarily from operational and external economic factors rather than managerial opportunism.

The finding may also indicate the existence of symbolic governance, where the appointment of independent commissioners is primarily intended to comply with regulatory requirements rather than to strengthen governance effectiveness. Although independent commissioners formally perform monitoring functions, they may have limited authority to influence strategic decisions dominated by controlling shareholders and executive management. As a result, their presence may not significantly contribute to preventing financial distress.

This finding is consistent with Humairoh & Nurulita (2022), who found that governance mechanisms do not significantly affect financial distress. However, the result differs from Nurzahara & Pratomo (2021), Begum et al. (2023), and Alzaira & Wardoyo (2025), who found that independent commissioners reduce financial distress risk. Therefore, the findings provide limited support for Agency Theory in the context of Indonesian property and real estate companies.

The Effect of Audit Committee on Financial Distress

The results show that the audit committee has a significant negative effect on financial distress. This finding indicates that companies with stronger audit committee structures tend to experience lower financial distress risk. The result supports Agency Theory, which emphasizes the importance of monitoring mechanisms in reducing information asymmetry and improving managerial accountability (Jensen & Meckling, 1976).

The audit committee plays an important role in overseeing financial reporting quality, internal control systems, risk management practices, and audit processes. In property and real estate companies, where projects require substantial investment and long-term financing commitments, effective financial monitoring becomes essential. A larger audit committee may provide greater monitoring capacity, allowing companies to identify financial problems earlier and implement corrective actions before financial difficulties escalate.

The result is particularly relevant during the post-pandemic recovery period. Although Indonesia experienced economic recovery during 2022–2024, the property and real estate sector continued to face relatively low growth, financing challenges, and increasing pressure from debt obligations. Under these circumstances, effective audit committees may contribute to improving financial discipline, enhancing reporting quality, and strengthening risk management practices, thereby reducing the probability of financial distress.

This finding is consistent with Begum et al. (2023) and Febriyanti & Khalifaturofi'ah (2023), who reported that audit committees reduce financial distress risk. The findings support Agency Theory by demonstrating that governance mechanisms directly involved in financial supervision are effective in mitigating financial distress.

The Effect of Corporate Social Responsibility on Financial Distress

The results indicate that Corporate Social Responsibility has a significant negative effect on financial distress. This finding supports Stakeholder Theory, which argues that companies must maintain positive relationships with stakeholders to ensure long-term sustainability and organizational success (Freeman, 1984).

The property and real estate sector has substantial environmental and social impacts because development activities affect local communities, land use, infrastructure, and environmental conditions. Consequently, maintaining stakeholder support becomes particularly important. Companies that actively implement and disclose CSR activities may strengthen relationships with communities, investors, creditors, regulators, and customers, thereby reducing business risks that could contribute to financial distress.

CSR may also improve financial stability through several mechanisms. First, CSR disclosure can enhance corporate reputation and strengthen investor confidence, making it easier for companies to access external financing. Second, CSR may improve relationships with creditors by signaling responsible business practices and lower non-financial risks. Third, CSR activities may reduce social conflicts, environmental disputes, and regulatory pressures that could otherwise disrupt business operations and increase financial burdens.

The findings are also consistent with Signaling Theory, which suggests that CSR disclosure serves as a positive signal regarding a firm's sustainability, ethical commitment, and future prospects (Spence, 1973). Therefore, broader CSR disclosure may increase stakeholder confidence and contribute to lower financial distress risk. This finding supports Farooq et al. (2024), Tran & Thảo (2024), and Alzaira & Wardoyo (2025).

The Moderating Role of Profitability in the Effect of Independent Commissioners on Financial Distress

The results indicate that profitability significantly moderates the relationship between independent commissioners and financial distress. This finding suggests that the effectiveness of independent commissioners in reducing financial distress depends on the company's financial performance.

Independent commissioners are responsible for monitoring management and providing strategic oversight. However, the implementation of recommendations proposed by independent commissioners often requires financial resources and organizational flexibility. Companies with higher profitability generally possess stronger financial capacity, allowing management to respond more effectively to governance recommendations and implement corrective actions when financial risks arise.

From the perspective of Signaling Theory, profitability reflects a firm's financial strength and favorable future prospects (Spence, 1973). Higher profitability signals stronger financial conditions, enabling governance mechanisms to operate more effectively. In profitable companies, independent commissioners may have greater opportunities to influence strategic decisions because management is not excessively constrained by financial pressures.

Conversely, companies with low profitability tend to focus on short-term financial survival, debt repayment, and liquidity management. Under such conditions, the monitoring role of independent commissioners may become less effective because management prioritizes immediate operational concerns rather than long-term governance recommendations.

This finding is consistent with Phania (2025), who found that profitability strengthens the role of corporate governance in reducing financial distress. Therefore, profitability enhances the effectiveness of independent commissioners in mitigating financial distress risk.

The Moderating Role of Profitability in the Effect of Audit Committee on Financial Distress

The results show that profitability does not significantly moderate the relationship between audit committee and financial distress. This finding indicates that the effectiveness of audit committees in reducing financial distress is relatively consistent regardless of the firm's profitability level.

The audit committee primarily performs monitoring, compliance, and oversight functions related to financial reporting, internal control, and audit activities. These responsibilities remain necessary regardless of whether a company generates high or low profits. Consequently, the effectiveness of audit committees is less dependent on the availability of financial resources compared with other governance mechanisms.

In property and real estate companies, audit committees are required to ensure the reliability of financial reporting and monitor financial risks regardless of the firm's financial condition. Even companies experiencing low profitability still require effective financial oversight to prevent further deterioration of financial performance. Therefore, profitability may not substantially alter the ability of audit committees to perform their supervisory functions.

The finding suggests that audit committees contribute directly to reducing financial distress through monitoring and control mechanisms rather than through financial capacity. As a result, profitability does not strengthen or weaken the relationship between audit committees and financial distress.

The Moderating Role of Profitability in the Effect of Corporate Social Responsibility on Financial Distress

The results indicate that profitability significantly moderates the relationship between Corporate Social Responsibility and financial distress. This finding suggests that the effectiveness of CSR in reducing financial distress varies according to the firm's profitability level.

CSR implementation requires substantial financial resources, managerial commitment, and long-term strategic planning. Companies with higher profitability generally possess greater financial flexibility to undertake CSR programs consistently and disclose CSR activities more comprehensively. Consequently, profitable firms may obtain greater benefits from CSR activities in the form of improved stakeholder trust, stronger reputation, and enhanced business sustainability.

From the perspective of Signaling Theory, profitability and CSR disclosure jointly serve as positive signals regarding a company's financial strength and commitment to sustainable business practices (Spence, 1973). Companies that exhibit both strong profitability and extensive CSR disclosure may gain greater support from investors, creditors, regulators, and local communities, thereby reducing financial distress risk.

Because the analysis uses binary logistic regression, the significant interaction coefficient should be interpreted cautiously. The significant interaction indicates that the relationship between CSR and financial distress differs across profitability levels rather than implying a simple linear strengthening effect. Nevertheless, the findings suggest that CSR tends to be more effective in reducing financial distress among firms with stronger profitability because these firms possess greater resources to implement CSR initiatives and maintain stakeholder relationships.

This finding supports Nasution & Ratmono (2024), who found that profitability strengthens the influence of CSR on financial distress. The result also reinforces the argument that financial performance plays an important role in determining the effectiveness of CSR as a mechanism for reducing financial distress risk. Although marginal effect analysis was not performed in this study, the positive interaction coefficient indicates that the relationship between CSR and financial distress varies across profitability levels. Therefore,

the moderating effect should be interpreted as a change in the magnitude of the relationship rather than as evidence of a simple linear strengthening effect.

4. Conclusion

This study concludes that audit committee and corporate social responsibility (CSR) significantly reduce the likelihood of financial distress in property and real estate companies, whereas independent commissioners do not have a significant effect. These findings suggest that governance mechanisms directly related to financial oversight and stakeholder engagement are more effective in mitigating financial distress than the mere presence of independent commissioners. Profitability is also found to strengthen the effects of independent commissioners and CSR on financial distress, indicating that governance and sustainability practices tend to be more effective when supported by strong financial performance.

The main contribution of this study lies in demonstrating that the effectiveness of governance and CSR in reducing financial distress depends not only on their implementation but also on the firm's profitability condition. By focusing on the property and real estate sector during the post-pandemic recovery period, this study extends the financial distress literature by providing evidence from an industry characterized by high capital intensity, substantial reliance on external financing, and vulnerability to economic fluctuations.

The findings provide several practical implications. For company management, strengthening audit committee effectiveness through enhanced financial expertise, active monitoring of financial reporting, and regular evaluation of internal control systems may help reduce financial distress risk. Companies should also implement CSR strategically by prioritizing programs that strengthen relationships with local communities, investors, creditors, and other stakeholders, particularly because property and real estate activities often generate significant social and environmental impacts. Maintaining profitability is equally important because profitable firms possess greater financial flexibility to support governance and sustainability initiatives.

For investors and creditors, audit committee effectiveness, CSR disclosure quality, and profitability may serve as important indicators in assessing financial distress risk. Companies with weak governance oversight, limited CSR disclosure, and declining profitability may require closer evaluation before

investment or lending decisions are made. For capital market regulators, the findings highlight the importance of strengthening governance supervision and encouraging more comprehensive CSR disclosure practices to improve transparency and support the long-term sustainability of listed companies.

This study has several limitations. First, the research focuses only on independent commissioners, audit committee, CSR, and profitability without incorporating additional control variables such as leverage, liquidity, firm size, sales growth, and cash flow. Second, audit committee effectiveness is measured solely by the number of committee members and therefore may not fully capture committee quality, expertise, independence, and meeting frequency. Third, the distribution of financial distress observations is relatively imbalanced, which may affect classification performance. Future studies are encouraged to include additional governance attributes, control variables, and alternative classification techniques to provide a more comprehensive understanding of financial distress determinants.

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