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## CEO Characteristics and Their Impact on Financial Distress: Evidence from Indonesia's State-Owned Non-Financial Enterprises

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### Article History:

Received: 05-08-2025

Revised: 08-08-2025

Accepted: 08-08-2025

**Keywords:** CEO characteristics; Financial distress; State-owned enterprises (SOEs); Upper Echelon Theory

**Abstract:** Company performance can be influenced by internal managerial factors, particularly the characteristics of the Chief Executive Officer (CEO), including age, gender, educational background, experience, and CEO duality. Guided by the Upper Echelon Theory, this study aims to examine the effect of CEO characteristics on financial distress in non-financial state-owned enterprises (SOEs) in Indonesia. The research population includes SOEs listed on the Indonesia Stock Exchange from 2020 to 2024. Using purposive sampling, 95 firm-year observations were selected and analyzed using multiple linear regression. The results reveal that CEO gender, education, and duality have a significant positive effect on financial distress, while CEO age and experience do not have a statistically significant impact. These findings suggest that leadership attributes, especially CEO structure and educational attainment, are important determinants in mitigating or exacerbating a firm's financial vulnerability. The study provides insights for policymakers and boards of commissioners in improving CEO appointment criteria to enhance the financial sustainability of SOEs.

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## Introduction

The Covid-19 pandemic has not only affected the health sector, but also weakened the economies of countries around the world, including

Indonesia's state-owned enterprises (SOEs). According to Indonesia's SOE Minister, the COVID-19 pandemic has had a significant impact on the performance of most SOEs. SOEs have faced continuous contraction, leading to a reduction in the number of SOEs from 2016 to 2020. In 2020, the Central Statistics Agency (BPS) reported that there were 107 SOEs, and by 2024, the number of SOEs had decreased to 65. This reduction in the number of SOEs is a result of the restructuring policies implemented by the Ministry of SOEs in 2019.

The government is making efforts to maintain the performance of state-owned enterprises (SOEs) so that it remains stable and improves by channeling investment funds. The government has channeled funds amounting to Rp695.6 trillion over 16 years, from 2005 to 2021. The risk that SOEs may face in the short term is a decline in business income, which causes a decline in cash flow, so that companies will face liquidity risks. In the long term, this could increase the risk of default on maturing payment obligations. The financial losses experienced by SOEs in recent years pose uncertainty regarding the companies' ability to continue their operations in the future. The following table shows some examples of Indonesian SOEs with negative equity in 2020.

Table 1. Examples of Indonesian SOEs with negative equity in 2020

No	State-Owned Enterprises with the Largest Negative Equity	Amount of Negative Equity
1.	PT Asuransi Jiwasraya	-38.675,87
2.	PT Garuda Indonesia	-13.649,83
3.	PT ASABRI	-13.301,96
4.	PT Merpati Nusantara Airline	-6.773,18
5.	PT PANN	-3.298,05
6.	PT Dok dan Perkapalan Kodja	-1.385,41
7.	PT Iglas	-1.193,06

8	PT Kertas Kraft Aceh	-1.095,7
9	PT Kertas Leces	-722,65
10	PT Industri Telekomunikasi	-420,38
11	PT Dok dan Perkapalan Suraba	-281,88
12	PT Survai Udara Penas	-141,63
13	PT Industri Nuklir Indonesia	-11,99

Based on the data in Table 1, state-owned enterprises with negative equity are experiencing financial difficulties or financial distress. When a company faces financial difficulties or is unable to pay dividends, it can be considered to be in financial distress (Beaver, 1966). Similarly, when a company fails to obtain a return on capital risk, causing it to fail to pay its financial obligations when due, the company is also considered to be facing financial distress (Altman, 1968). Currently, various phenomena related to financial distress are occurring in companies in Indonesia, such as

PT Istaka Karya (Persero), a state-owned enterprise (SOE) in the construction sector, experienced a chronic financial crisis and was officially declared bankrupt by the Central Jakarta Commercial Court on July 12, 2022. This financial distress stemmed from the company's failure to execute construction projects efficiently, resulting in cumulative losses and an inability to meet its financial obligations. The company's debt burden reached approximately Rp1.1 trillion, including arrears to 179 creditors, most of whom were local vendors and SMEs that served as partners in various projects. Restructuring efforts through the Debt Payment Obligation Deferral Scheme (PKPU), which had been implemented since 2013, proved ineffective as they were not accompanied by improvements in operational performance and management efficiency.

Discussing the financial condition of a company is closely related to the capabilities of a company leader or Chief Executive Officer (CEO). Every CEO is assessed based on their characteristics and abilities in

running the company's business. Age, education, years of service, and gender are managerial characteristics discussed in Upper Echelon Theory. This theory suggests that vision and strategic choices are influenced by the CEO's values, personality, and experience, which ultimately impact company performance. Therefore, it can be said that an organization is a reflection of its CEO.

CEO characteristics are internal factors that can determine a company's financial performance. Tanjaya and Santoso (2020) state that the CEO is the most important figure in managing and determining the company's future strategy to avoid financial distress. CEO characteristics include age, gender, education, experience, and CEO duality. The CEO is also responsible for the success of the company he or she leads. CEOs are tasked with making important decisions and policies within the company. If a CEO is unable to manage and lead the company effectively, the company becomes more vulnerable to financial distress. According to Certo et al (2007), CEOs have the power to influence investment decisions by potential investors. A CEO's leadership style will impact the level of confidence potential investors have in investing their capital at a high value. Investors can assess a company by getting to know the CEO (Tanjaya and Santoso, 2020).

Based on previous research conducted by Kristanti et al. (2016), Ningrum & Hatane (2017), and Abdullah & Ma'aji (2016) stated that gender affects financial distress, women choose to take low-risk decisions so that the companies they run are safer and reduce financial distress. However, this research is not in line with the research conducted by Sholikhah (2018), which shows that the gender of the CEO has a negative effect on financial distress. Furthermore, based on research conducted by Tanjaya & Santoso (2020), it is also stated that CEOs with higher education are more mature in their decision-making, so the risks they take will be fewer. Therefore, they can avoid financial distress. In contrast, the results of the study conducted by Mahardini & Bandi (2023) show that the CEO characteristics

that significantly influence financial distress are the CEO's age, while the CEO's tenure and educational background do not significantly influence financial distress.

Based on previous research, there are still empirical gaps in previous studies that produce inconsistent results. Therefore, this study examines whether CEO characteristics can influence financial distress. The researchers are interested in conducting a study titled "Analysis of CEO Characteristics on Financial Distress in Non-Financial Subsector State-Owned Enterprises."

## Research Methods

This study employs a quantitative approach using a hypothesis-testing design to examine the relationship between CEO characteristics and financial distress in state-owned enterprises (SOEs) within the non-financial subsector. The data used are secondary data obtained from annual reports and financial statements of SOEs listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024. The sampling technique used is purposive sampling with the following criteria:

1. SOEs listed on the IDX during 2020–2024
2. SOEs operating in the non-financial subsector
3. SOEs that disclose complete data related to CEO characteristics and financial performance indicators in their annual and financial reports.

The dependent variable in this study is financial distress, measured using Altman's Z-score and other relevant financial indicators. The independent variables include CEO characteristics, namely: Age, Gender, Educational background, Experience, and CEO duality. This study also uses control variables, including:

Firm size (SIZE), proxied by the natural logarithm of total assets, and Leverage, measured using the debt-to-equity ratio (DER). Prior to

hypothesis testing, classical assumption tests were conducted. The normality test was performed using the Kolmogorov–Smirnov test, which confirmed that the residuals followed a normal distribution. The multicollinearity test used the Variance Inflation Factor (VIF), and all independent variables had VIF values below 10, indicating no multicollinearity problems. The analysis was conducted using multiple linear regression to test the effect of CEO characteristics on financial distress, with firm size and leverage as control variables. The statistical analysis was performed using SPSS.

## Result and Discussion

**Table 2. Descriptive Statistical**

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Financial Distress	95	-20.12316	14.52981	1.3264	5.1740
CEO Age	95	0	1	0.97	0.176
CEO Gender	95	0	1	0.03	0.176
CEO Education	95	0	1	0.81	0.394
CEO Experience	95	0	1	0.61	0.490
CEO Duality	95	0	1	0.37	0.485
Firm Size (SIZE)	95	27.15001	33.33372	31.0664	1.3567

Source: data is processed 2025

Descriptive statistical analysis was used to provide an overview of the distribution, characteristics, and trends of each variable studied. In this

study, the data analyzed came from 95 observations of state-owned enterprises in the non-financial sub-sector. Descriptive statistics included the minimum, maximum, mean, and standard deviation of each variable.

**Table 3. Hypothesis Test**

Variable	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig.(p-value)
(Constant)	-2.255	0.105	—	-21.499	0.000
CEO Age	0.299	0.174	0.119	1.720	0.090
CEO Gender	1.743	0.164	0.717	10.652	0.000
CEO Education	0.180	0.087	0.150	2.076	0.042
CEO Experience	0.005	0.060	0.006	0.086	0.932
CEO Duality	0.117	0.056	0.145	2.086	0.041
Firm Size (SIZE)	0.239	0.056	0.302	4.245	0.000

Source: data is processed 2025

The results of hypothesis testing with multiple regression show that CEO age has a significance value of  $0.090 > 0.05$  with a regression coefficient of 0.299. Thus, CEO age has a positive and significant effect on financial distress, H<sub>1</sub> is REJECTED. This indicates that age maturity is not sufficient to be a determining factor in leadership effectiveness in preventing financial problems. The CEO's gender has a significance value of  $0.000 < 0.05$  with a regression coefficient of 1.742. Thus, the CEO's gender has a positive and significant effect on financial distress, H<sub>2</sub> is ACCEPTED. This indicates that differences in the CEO's gender

significantly affect the company's financial health. In this context, the results show that male CEOs are more likely to bring financial stability than female CEOs. CEO education has a significance level of  $0.042 < 0.05$  with a regression coefficient of 0.180. Thus, CEO education has a positive and significant effect on financial distress, H<sub>3</sub> ACCEPTED. This indicates that the level of education contributes to the company's financial performance. The CEO's experience has a significance value of  $0.932 > 0.05$  with a regression coefficient of 0.005. Thus, the CEO's experience does not have a positive and significant effect on financial distress, H<sub>4</sub> is REJECTED. This means that work experience as a leader of another company does not always contribute significantly to managing financial risk in the current company. CEO duality has a significance value of  $0.041 < 0.05$  with a regression coefficient of 0.117. Therefore, CEO duality has a positive and significant effect on financial distress, H<sub>5</sub> is ACCEPTED. This aligns with agency theory, which states that if the CEO also serves as the board chairman, there is a concentration of power and a weakening of oversight functions, thereby increasing the potential for financial issues.

## Conclusion and Recommendation

The results of this study indicate that the variables of CEO gender, CEO education, CEO duality, and company size (SIZE) are partially significant in influencing the level of financial distress of a company. In contrast, the variables of CEO age and CEO experience do not have a significant influence on financial distress. Simultaneously, all independent variables in this research model have a significant effect on financial distress. This is evidenced by the significant F-test results, which demonstrate that the combination of CEO characteristics and company size possesses strong predictive power for assessing a company's financial stability.



From a practical perspective, these findings have important implications for the Ministry of State-Owned Enterprises and boards of directors in CEO recruitment and succession planning. Specifically, decision-makers should carefully consider educational background, leadership role structure, and gender diversity in executive appointments, as these factors may enhance financial resilience and reduce the risk of financial distress.

For future research, it is suggested to include moderating variables such as macroeconomic conditions, industry competition intensity, or the quality of Good Corporate Governance (GCG) to capture broader contextual influences on the relationship between CEO characteristics and financial distress. This approach will enrich the understanding of both internal and external factors that jointly shape a firm's financial stability.

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