

DOES FIRM SIZE MODERATE THE FACTORS OF FINANCIAL DISTRESS? EVIDENCE FROM INDUSTRIAL COMPANIES

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Abstract

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Economic uncertainty will cause financial problems in the business sector that can affect the country's financial condition. This study aims to increase understanding of how to mitigate the risk of financial distress and explore the impact of firm size in managing financial distress. The research on 43 companies in the good industry sector of the Indonesian Stock Exchange (IDX) for 2020–2024. The analysis techniques used are inner and outer model structural. The empirical research finds that corporate social responsibility (CSR), intellectual capital, and operational capacity have a significant negative financial distress. This finding implies that CSR disclosure can support the company's business sustainability. The research investigation evidence that big firm size can support operating capacity in mitigating financial distress. The contribution of this research is important for the government in protecting investors with regulatory arrangements. The empirical literature highlights that the causes of financial distress in firms are often related to problems with their financial ratios.

Keywords: Corporate Social Responsibility, Intellectual Capital, Operating Capacity, Financial Distress, Firm Size

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1. INTRODUCTION

The financial crisis has been ongoing since 2008. This incident is a milestone in the global crisis. The mortgage scheme was the main cause of the monetary crisis that originated in the United States. A prolonged monetary crisis will trigger worsening liquidity in various countries. It will affect the economy of every country. Economic uncertainty will cause financial problems in the business sector (Ariff et al., 2023).

Financial firms are heavily influenced by prevailing country conditions. The COVID-19 pandemic, for instance, significantly impacted many nations, including Indonesia. The virus's spread weakened economic conditions, sharply increasing financial difficulties and disrupting corporate financial stability (Binesh et al., 2025). Big firms are generally more resilient, capable of navigating diverse challenges and protecting investors from financial loss. Conversely, smaller firms are more vulnerable to financial distress due to their limited experience with financial crises. They often struggle

to maintain liquid assets and meet creditor demands (Ahmed et al., 2019; Putri, 2021; Dwiarti et al., 2021).

Financial risk is an inherent part of a commodity-based economy. This risk impacts the income received by firms and the continuity of businesses (Rahman et al., 2023). Financial distress causes managers to make high-risk decisions that threaten the firm's sustainability (Wu et al., 2020). These risks create unique situations for public firms that go private. In developed countries, many public firms are moving away from state ownership. Firm delisting and bankruptcy are common occurrences in public firms (He et al., 2019). Research results show that, over the last decade, there has been a significant increase in bankruptcies in developing countries with lower-middle economic levels. Business failure happens not only to small companies but also to large companies. This phenomenon can negatively impact the economy (Awais-E-Yazdan et al., 2022). The same occurred in Indonesia, where bankruptcy increased, prompting the Indonesian Stock Exchange (IDX) to delist companies in that condition. According to IDX data, 17 companies between 2019 and 2023 declined in financial performance. Financial problems often occur in companies due to decreased profitability. It can be detrimental to a company because it can result in substantial losses for investors (Mirza et al., 2020; Dwiarti et al., 2021).

The critical conditions in a company's life cycle, particularly financial distress, demand careful management (Binesh et al., 2025). Altman's (1968) approach is a vital tool for assessing this risk. Furthermore, investors must evaluate potential financial distress to ensure business continuity and protect their investments (Dirman, 2021).

Previous literature on corporate financial distress often explores its causes but rarely delves into mitigation strategies. This study aims to deepen that understanding by examining how companies can overcome financial distress, specifically through corporate social responsibility (CSR) disclosure, which can safeguard company finances. While experts acknowledge CSR's significant role in firm performance, several areas remain unexplored (Rahman et al., 2023). CSR disclosure can increase a company's capital, providing crucial momentum to avoid financial crises (Koenig & Poncet, 2019; Yang et al., 2019; Boubaker et al., 2020). Companies facing bankruptcy risk can secure better funding if they engage in CSR activities, as this fosters greater trust and reliance from banks and investors. CSR activities can significantly help companies overcome financial distress (Gupta & Krishnamurti, 2018).

Management strategies that boost cash flow play a key role in CSR activities (Albuquerque et al., 2020). CSR initiatives promote financial stability within the business world. Firms gain financial benefits and an enhanced reputation while simultaneously avoiding economic crises (Okafor et al., 2021; Farooq et al., 2023). Companies with poor CSR performance often see increased debt and become more susceptible to bankruptcy (Huang & Ye, 2021). Therefore, CSR disclosure significantly contributes to financial performance and is highly relevant for preventing financial problems.

Companies face a serious risk of bankruptcy influenced by both internal and external factors (Waqas & Md-Rus, 2018; Dwiarti et al., 2021). One effective way firms can prevent this polemic is to manage intellectual capital effectively. Intellectual capital is closely tied to human resource management and technology utilization. Using advanced technology systems to develop employee knowledge can significantly increase a company's financial stability (Shahwan & Habib, 2020).

Literature suggests intellectual capital can maintain financial stability, with effective management leading to improved long-term financial performance to help companies avoid financial distress (Cenciarelli et al., 2018). Differences in research findings on ineffective management of intellectual capital can diminish company performance, causing financial issues to spread across departments and potentially leading to bankruptcy (Nadeem et al., 2017).

The company's asset turnover from sales can influence financial problems, and its operational capacity can predict the likelihood of financial distress (Park & Yi, 2022; Huang et al., 2022). Academics have explored this relationship, yielding varied results. For instance, even large companies with high operating capacities are not immune to financial distress (Andiappan et al., 2019; Winata & Budiasih, 2022). However, other findings indicate that operational capacity can mitigate a company's potential for financial crisis, as increasing sales can directly boost profits (Safiq et al., 2020).

This study addresses a gap in the existing research regarding how companies can avoid financial distress, particularly as the literature rarely incorporates company size as a moderator. Referring to research, Rahman et al. (2023) suggest that firm size can bolster a company's ability to prevent financial distress through financial and non-financial ratios, which can significantly enhance financial stability. This study's research question is:

RQ1: What factors influence financial distress, and does company size moderate these influences?

This paper is organized as follows. Section 1 explores the active role in mitigating financial distress experienced by companies in Indonesia, which can have an impact on the country's financial growth. Section 2 reviews literature using signaling theory to explain how firms can reduce financial distress. Section 3 utilizes research model moderation constructs with inner and outer model schemes, thereby facilitating the elucidation of variable relationships. The analysis covers 43 industrial companies listed on the IDX from 2020 to 2024. Section 4 presents research results that the company's activities in CSR disclosure engagement can fully contribute to mitigating financial distress. The ratio of financial to intellectual capital and operating capacity in the company will reduce the occurrence of financial distress conditions. Empirical evidence indicates a negative correlation between the size of a company's assets and its susceptibility to financial distress. Section 5 shows that findings can be used by investors and company managerial parties to make decisions related to mitigating financial risks, especially in business continuity.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Signaling theory

Ross's (1977) financial reports offer stakeholders crucial information about a company's financial performance, aiding their investment decisions. Stakeholders can glean various insights from these reports, including increases in firm profits. However, the information presented can also be negative, such as losses, an inability to pay debts, or financial distress. Signaling theory thoroughly explains how financial reports and firm activities generate crucial information for external parties. This information serves as a signal to stakeholders, supporting informed investment decisions. In line with signaling theory, larger firms with substantial assets tend to exhibit stronger financial stability, as reflected in their reports. This stability encourages investor confidence. Firm size also enhances CSR reporting, intellectual capital management, and operating capacity, thereby helping to prevent financial distress (Boubaker et al., 2020).

2.2. Hypothesis

The firm implements CSR as a good business strategy (Albuquerque et al., 2020). This strategy incorporates the firm's concerns about the economy, environment, social disclosure, and human rights into its business strategy (Binesh et al., 2024). Disclosing CSR activities can directly lower the risk of financial distress. CSR helps firms secure increased financing, an approach that ultimately reduces their financial difficulties (Boubaker et al., 2020; Zhou et al., 2025). CSR disclosure builds stakeholder trust, supports operations, and helps reduce financial distress (Sastroredjo & Suganda, 2025).

CSR activities positively impact a firm's future to reduce bankruptcy. Companies engaged in CSR disclosure are also more likely to recover from financial distress (Lin & Dong, 2018). Signaling theory suggests that providing information about CSR activities convinces investors and sends a positive signal about firm management. This information benefits the firm and its wider environment. Increased employee productivity and enhanced customer trust, fostered by CSR disclosure, make the firm's products more desirable (Gangi et al., 2020).

Literature on CSR suggests its significant potential in reducing financial risks and easing financial burdens. Firms demonstrating a strong commitment to CSR disclosure and high data transparency are better equipped to mitigate business risks (Albuquerque et al., 2020; Yadav & Asongu, 2025). Companies with sound CSR practices often exhibit a decrease in debt financing and an increase in performance (Yeh et al., 2020). The existing literature consistently indicates a negative impact of CSR on financial distress, showing that CSR activities can boost investment and lower the risk of financial distress (Farooq et al., 2023; Binesh et al., 2024; Zhou et al., 2025). Based on these insights, the hypothesis for this research regarding CSR and financial distress is:

H1: CSR and financial distress have a negative relationship.

During the shift to a technology and knowledge-based economy, intellectual capital is crucial for building competitive advantage as an intangible asset. It enhances product value, fostering a knowledge-based economic edge that boosts firm performance and competitiveness (Babkin et al., 2022; Durst et al., 2021; Ali et al., 2024; Xu et al., 2020; Kulathunga et al., 2020). Indicators of financial distress include difficulties collecting receivables, decreased profits, inability to distribute dividends, employee reductions, closure of business units, and a drop in stock prices (Supriyanto & Darmawan, 2018; Nurcahyono et al., 2023).

Leveraging intellectual capital as a non-monetary asset involves acknowledging its value and contribution to boosting firm profits. Signaling theory posits that providing information about intangible assets helps stakeholders grasp how a firm manages its resources and knowledge, consequently adding value. Companies with superior resources can effectively resolve issues related to financial distress (Kasoga, 2020).

Investors must supervise intellectual capital management to ensure efficient resource utilization for competitive market outputs (Boubaker et al., 2022). Intellectual capital is crucial for increasing added value because it directly influences operational efficiency and business competitiveness (Ovechkin et al., 2021). Companies with good intellectual capital show that they predict a firm's financial health and its likelihood of bankruptcy. Consistent with prior research, intellectual capital has been confirmed to decrease the probability of financial distress (Skhvediani et al., 2023; Kimuam et al., 2025). Based on these insights, the relationship between intellectual capital and finance leads to the following hypothesis:

H2: Intellectual capital and financial distress have a negative relationship.

Operating capacity signifies the efficient management of assets to support an organization's functional implementation. Firms measure operating capacity by evaluating their assets' ability to generate sales. Effectively managing firm assets leads to increased sales revenue, which in turn enhances financial performance and helps the firm avoid financial distress. An organization's capacity for strong resource management can yield substantial benefits and prevent financial distress (Larasati & Wahyudin, 2020; Mahesh et al., 2025).

Signaling theory posits that a firm's efficiency in utilizing its resources to finance operational activities and optimally generate sales is crucial. Higher sales volumes directly translate to increased profits, as reflected in the firm's financial statements. This information then serves as a positive signal to stakeholders, guiding their investment decisions. The effective management of sales revenue during a given period ensures a corporation's sustained viability (Lee et al., 2017; Michalkova & Ponisciakova, 2025).

Financial information is a primary criterion in financial markets, as it reflects how a firm manages its assets and operational capacity to provide stakeholders with accurate data (Jacoby et al., 2019; Li et al., 2020). Efficient management of operational

capacity can offer significant benefits and help prevent financial distress. Firms that effectively manage their operational capacity often show strong survival prospects and a reduced potential for financial distress (Andreou et al., 2021). Research on operating capacity consistently indicates a negative influence on financial distress, suggesting that firms effectively utilize their assets to increase profit and help them avoid financial distress (Safiq et al., 2020). The constructed hypothesis of operating capacity and financial distress for this research is:

H3: Operating capacity and financial distress have a negative relationship.

CSR disclosure offers significant benefits to firms, positively impacting their progress by enhancing their image, attracting consumers, and providing a competitive advantage that can boost sales (Oware & Appiah, 2022; Yadav & Asongu, 2025). Firms that disclose CSR are less prone to financial distress, as their performance generally surpasses that of companies not engaging in CSR disclosure. By embracing social responsibility, firms enhance transparency, strengthen their public image, and mitigate the risk of stock price decline. Moreover, CSR can lead to increased funding and a reduced likelihood of financial distress (Boubaker et al., 2020; Farooq et al., 2023).

CSR disclosure fosters stakeholder trust, and the information within these reports can mitigate financial distress (Maso et al., 2020). A firm's size can indeed influence the extent of its CSR disclosure, aiming to alleviate financial distress. According to signaling theory, big firms tend to provide more detailed information about their performance and CSR activities. This comprehensive CSR information reduces information asymmetry and effectively signals the firm's condition to investors (Karaman et al., 2021). Firms actively contributing to environmental and social well-being through CSR are less bankrupt (Lin & Dong, 2018; Nurcahyono et al., 2023).

CSR can instil confidence in stakeholders, guiding their decisions based on the information provided by the firm. Both large and small firms can leverage sustainability disclosures to enhance communication, transparency, and investor trust (García-Sánchez et al., 2019). Implementing CSR can focus on ensuring a firm's financial health, thereby reducing financial distress and the risk of default (Rahman et al., 2023; Yadav & Asongu, 2025). The literature on how CSR disclosure affects moderate firm size with CSR disclosure to financial distress, so the concept of the hypothesis is built as follows:

H4: Firm size moderates the relationship of CSR to financial distress.

Intellectual capital encompasses the collective knowledge, expertise, information, experience, and skills within an organization's employees,

management, and business processes (Mukaro et al., 2023). These intangible assets are vital for long-term success, offering major competitive advantages like innovation, increased efficiency and productivity, and excellence in marketing and branding (Oppong & Pattanayak, 2019; Nurcahyono et al., 2023).

Both large and small firms recognize intellectual capital as a crucial business resource (Mukaro et al., 2023). There's a strong positive correlation between intellectual capital and human resource capacity, skills, and knowledge, which impacts overall firm success (Aman-Ullah et al., 2022). According to signaling theory, firms must effectively manage their intellectual assets to provide stakeholders with information for decision-making. Intellectual capital is highly effective at decreasing risk in financial companies. Firms with significant total assets are less likely to encounter corporate problems than smaller firms, which are more susceptible to financial distress (Cenciarelli et al., 2018; Kimuam et al., 2025). The literature on how intellectual capital affects moderate firm size with intellectual capital to financial distress, so the hypothesis is built as follows:

H5: Firm size moderates the relationship of intellectual capital to financial distress.

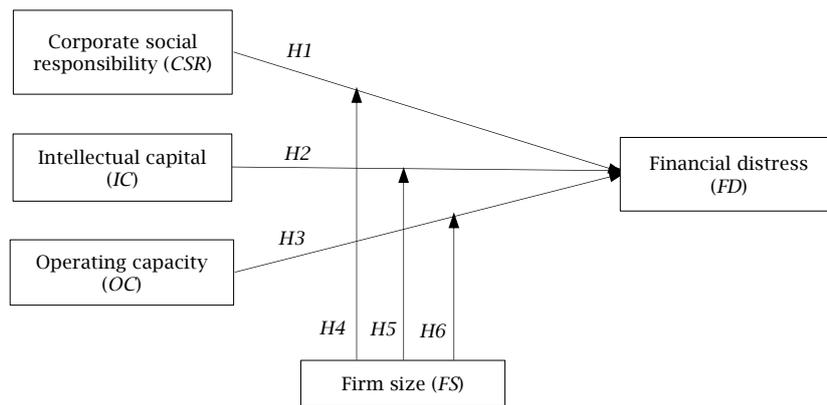
A firm with high operational capacity can leverage its operations to generate sales, and maximizing asset utilization positively impacts profit (Larasati & Wahyudin, 2020). Big firms typically possess a high level of operational capacity, bolstered by substantial profits, enabling them to meet all their operational financing needs (Andiappan et al., 2019; Hartman-Glaser et al., 2025). This situational condition indicates that firm size can influence the relationship between operating capacity and financial distress.

Big firms are generally seen as capable and stable in navigating business challenges, often demonstrating high total asset turnover through increased production and sales. Intellectual capital is a vital asset because effective management of these resources leads to quality output, ensuring profits align with firm goals to decrease financial distress (Safiq et al., 2020).

According to signaling theory, firms of all sizes must effectively manage their assets. A company's sustainability directly affects its operating capacity to increase income. The ability to generate substantial profits can contribute to a firm's financial stability, mitigating the risk of financial distress. The literature on how firm size affects operating capacity and financial distress, so the concept of the hypothesis is built as follows:

H6: Firm size moderates the relationship of operating capacity to financial distress.

Figure 1. Research framework



Source: Data processing results, 2025.

3. METHOD

The present research model utilizes alternative moderation constructs with inner and outer models. The focal point of this inquiry is the prevalence of financial challenges in Indonesia, a nation where the majority of companies are susceptible to financial difficulties. A review of IDX data from 2020 to 2024 highlights a delisting trend among companies, particularly within the consumer

goods sub-sector, which is highly vulnerable due to declining financial performance. The financial crisis, driven by multiple factors, adversely impacted the economy, leading to decreased sales and increased losses. These risks significantly contribute to the potential for financial distress among firms (Ariff et al., 2023). The sample for this research included all sub-sectors of the consumer goods industry, 51 firms. However, the final sample consisted of 43 firms in 215 data points.

Table 1. Sample research

Criteria	Amount
The consumer goods industry firm was listed on the IDX between 2020 and 2024	51
The company will publish complete annual reports and continue to publish annual reports during the period of research	8
Total observed company	43
Total data observed	215

Source: Data processing results, 2025.

This research identifies factors that may reduce the risk of financial distress. CSR disclosure, measured using the Global Reporting Initiative (GRI) Standards across economic, environmental, labour, human rights, and social dimensions, is found to mitigate such risks. Companies disclosing CSR receive a score of 1; otherwise, a score of 0 is assigned (Trisnadewi & Amlayasa, 2020; Oware & Appiah, 2022).

Financial distress (FD) can be interpreted with model Z-score analysis. The research conducted by Altman et al. (2017) shows that the Z-score provides the most accurate measurement for model assessment to predict financial distress. The previous research has used the Z-score to measure the vulnerability of a firm’s financial condition to financial distress. If mode (I) produces a Z-score > 2.99 with a dummy decision of 1 point, the company indicates financial distress; otherwise, it (Li et al., 2022; Ariff et al., 2023; Abbas & Frihatni, 2023; Rahman et al., 2023). Prediction of financial distress in a company with a formula from research is mode (I) firm sector manufacturing:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.64X_4 + 1.05X_5 \quad (1)$$

where:

- X_1 = Working capital/Total assets;
- X_2 = Retained earnings/Total assets;
- X_3 = EBIT/Total assets;

- X_4 = Book value of equity/Book value of debt;
- X_5 = Sales revenue/Total assets.

This research uses intellectual capital (IC) such as value added, capital employed, human capital, and structural capital. This variable can be measured by value added collectivity to provide intellectual assets and tangible assets to the finance of the firm (Skhvediani et al., 2023). The calculation formula of intellectual capital is:

$$VAIC = \frac{VA}{CE} + \frac{VA}{HC} + \frac{SC}{VA} \quad (2)$$

where:

- VA = Value added (Sales and other income - operating expenses (other than employee expenses, amortization, and depreciation));
- CE = Capital employed (total equity);
- HC = Human capital (salary and benefits costs);
- SC = Structural capital (VA-HC).

Operating capacity (OC) is measured using the asset turnover ratio, reflecting the company’s ability to generate cash from its assets. It is defined as the ratio of sales to total assets. The use of this variable, based on formulas from prior studies, plays a vital role in the research framework (Larasati & Wahyudin, 2020). This variable is measured using the logarithm of total assets, representing the firm’s size (Dirman, 2021).

The analysis of data and the execution of research testing were conducted using structural equation modeling methods. This paper proposes an alternative method for structural equation modeling. The partial least squares (PLS) approach utilizes inner and outer models. The inner model tests the hypothesized paths among constructs, while the outer model evaluates how well the indicators reflect or form the constructs. This study did not assess the validity and reliability of indicators by testing latent constructs. Consequently, the results of this test were disregarded (Ghozali, 2016).

4. RESULTS AND DISCUSSION

The total amount of research data collected amounted to 215 from 43 sample companies. The data is described using descriptive statistics, which include the minimum, maximum, average, and standard deviation values. Descriptive statistics are intended to provide an overview of the distribution and behavior of sample data.

Table 2. Descriptive test result

Variable	N	Mean	Min	Max	Std. Dev.	Variance
Corporate social responsibility (CSR)	215	0.05	0.02	0.12	0.02	0.001
Intellectual capital (IC)	215	1.80	-4.2	5.86	2.12	4.51
Operating capacity (OC)	215	1.04	0.09	4.58	0.56	0.31
Financial distress (FD)	215	0.63	0	1	0.48	0.23
Firm size (FS)	215	28.11	13.62	32.4	2.85	8.15

Source: Data processing results, 2025.

As illustrated in Table 2, the mean value of the financial distress variable is 0.63. The result of the statistical analysis indicates that the value of the standard deviation, 0.48, is less than the mean value. This mean value indicates that the average firm possesses a 63% probability of experiencing financial distress. The standard deviation is found to be less than the mean value, indicating that the data

is homogeneous. The independent and moderating variables show varied descriptive statistics. CSR mean of 0.05 reflects adequate disclosure per GRI standards, while an intellectual capital mean of 1.80 indicates effective intangible asset management. Firms in the consumer goods and industrial sectors exhibit substantial asset size, as shown by mean values near the maximum.

Table 3. Model fit

Criteria	Rule of thumb	Result	Identification
Average path coefficient (APC)	P-value \leq 0.05	0.004	Model fit
Average R-square (ARS)	P-value \leq 0.05	0.001	Model fit
Average adjusted R-squared (AARS)	P-value \leq 0.05	0.001	Model fit
Average block VIF (AVIF)	Acceptable if \leq 5; Ideally \leq 3.3	1.094	Model fit
Average full collinearity (AFVIF)	Acceptable if \leq 5; Ideally \leq 3.3	1.571	Model fit
Tenenhaus Goodness of Fit (GoF)	Small \geq 0.1; Medium \geq 0.25; Large $>$ 0.36	0.782	Weak
Sympson's paradox ratio (SPR)	Acceptable if \geq 0.7; Ideally = 1	0.860	Model fit
R-squared contribution ratio (RSCR)	Acceptable if \geq 0.9; Ideally = 1	0.979	Model fit
Statistical suppression ratio (SSR)	Acceptable if \geq 0.7	1.000	Model fit
Nonlinear bivariate causality direction ratio (NLBCDR)	Acceptable if \geq 0.7	1.000	Model fit

Source: Data processing results, 2025.

Based on Table 3, the resulting Tenenhaus GoF (GoF) value is $0.782 > 0.36$, which means the model fit is good and strong. For Sympson's paradox ratio (SPR), it has a value of $0.860 < 0.7$, indicating strong causality. The R-squared contribution ratio (RSCR) has a value of $0.979 > 0.9$, which means a good causal relationship. The statistical suppression ratio (SSR) produces a value of $1.000 < 0.7$, and

the nonlinear bivariate causality ratio (NLBCDR) produces a value of $1.000 < 0.7$, which means strong causality. The R-square from the research is 0.601 or 60.1%, which means the financial distress variable explained by CSR, intellectual capital, operating capacity, and firm size is 60.1%. While the rest is explained by other factors outside this model.

Table 4. Summary hypotheses

Hypotheses	Coefficient	p-value	Result
CSR \rightarrow FD	-0.344	0.027	Accepted
IC \rightarrow FD	-0.801	<0.001	Accepted
OC \rightarrow FD	-0.389	0.019	Accepted
FS moderated CSR \rightarrow FD	0.016	0.405	Rejected
FS moderated IC \rightarrow FD	0.052	0.220	Rejected
FS moderated OC \rightarrow FD	0.067	0.029	Accepted

Source: Data processing results, 2025.

4.1. The CSR and financial distress relationship

Hypothesis testing results with a path coefficient value of -0.344 and a p-value of 0.027. It has been proven that CSR has a significant effect on financial

distress. The company's involvement in CSR disclosure activities can mitigate financial distress. This finding aligns with prior research suggesting that CSR can function as a mechanism for mitigating

financial distress in business entities (Boubaker et al., 2020; Rahman et al., 2023; Zhou et al., 2025).

The result makes sense with signaling theory, which states that there are positive signals in corporate management because it provides information that can convince investors of the beneficial impact of CSR activities on the company and the environment. It shows that the company has quality management and is committed to maintaining sustainable business practices, thereby increasing market and investor confidence in the company. CSR can reduce the company's business risk. CSR disclosure information can strengthen the relationship between the company and its stakeholders, which can help the financial stability and growth of the company (Benlemlih & Girerd-Potin, 2017; Bhattacharya et al., 2021).

The researchers found that CSR disclosure encourages greater transparency, as companies openly report their social responsibilities rather than concealing them. Through responsible practices, firms can utilize internal resources more efficiently and effectively, thereby building investor trust. Moreover, CSR disclosure reduces information asymmetry and enhances transparency, facilitating easier access to external funding (Hamrouni et al., 2019; Boubaker et al., 2020). A good reputation will increase public confidence to buy the company's products, thereby increasing sales and profits (Maso et al., 2020).

This study proves that CSR disclosure can mitigate the risk of financial distress. Previous research shows that corporate participation in CSR activities is financially beneficial. CSR disclosure is important for companies to achieve sustainable development for future business. Efficient CSR disclosure can increase firm value and minimize the risk of financial distress (Abbas, 2020; Okafor et al., 2021; Shirasu & Kawakita, 2021; Albuquerque et al., 2020; Boubaker et al., 2020; Yeh et al., 2020; Farooq et al., 2023; Yadav & Asongu, 2025).

4.2. The intellectual capital and financial distress relationship

The statistical test results of the p-value of 0.001 and the path coefficient of -0.801 show that intellectual capital and financial distress have a negative relationship. Effective and efficient management of intellectual capital can increase product value and create economic advantages that improve competitiveness and company performance. Increasing intellectual capital can increase sales. As a result, higher revenue will reduce the likelihood of financial distress (Durst et al., 2021).

The development of intellectual capital, which consists of human, relational, and structural capital, will enhance the company's financial performance (Babkin et al., 2022). Intellectual capital to advance company performance. Intellectual capital increases employee competence and corporate capabilities, where knowledgeable and skilled employees make a significant contribution to the progress of the company (Ozgun et al., 2022). Previous research found that intellectual capital can reduce the occurrence of financial distress in the company (Xu et al., 2020; Kulathunga et al., 2020; Mukaro et al., 2023).

The intellectual capital model can increase the company's ability to overcome business risks. A company's strong resources are key to developing high-value products that boost profits. When intellectual capital is managed well, it makes the company more appealing to investors. In line with signaling Theory, a company's intellectual capital can transmit positive signals to the market and relevant stakeholders. These signals highlight the firm's progress in achieving substantial profits, thereby aiding in overcoming financial distress. Technological progress, which is the main resource of the company, signals to the market that the company can quickly adapt to changes in the business environment (Kimuam et al., 2025). Relational capital, which includes relationships with customers, suppliers, and partners, can help the company obtain stable revenue and reduce the risk of financial distress. It signals to the market that the company has a strong customer base and can overcome financial problems with the help of related parties. Knowledge resources, which are part of intellectual capital, are effectively managed by the company, thereby minimizing financial difficulties (Shahwan & Habib, 2020).

4.3. The operational capacity and financial distress relationship

Testing the hypothesis yielded a path coefficient of -0.389 and a p-value of 0.019, demonstrating a negative impact of operational capacity on financial distress. When a company exhibits a high ratio of operating activities, it signifies efficient asset management and, consequently, higher profits. This efficiency directly helps alleviate the company's financial distress (Jacoby et al., 2019; Li et al., 2020).

The research aligns with signaling theory, which suggests that a company's efficient use of resources for operations is key to its success. Maximizing sales through effective asset utilization directly boosts company profits, as seen in financial statements. This positive financial information acts as a signal for stakeholders, guiding their investment decisions. Furthermore, effective financial administration is proven to reduce financial distress. These findings are consistent with existing literature, indicating that operational capacity negatively influences financial distress (Safiq et al., 2020; Michalkova & Ponisciakova, 2025).

An organization's capacity for effective operations directly correlates with its profit generation potential, which hinges on the efficient utilization of its assets and capital. It connects high profitability and superior performance in mutual funds (Li et al., 2020). Managerial ownership plays a crucial role in shaping a company's strategic direction, primarily aiming to maximize sales profits. It involves effective management of the firm's assets. The management team believes in its knowledge and expertise to operate company-owned assets optimally. Consequently, a core function of management is to oversee the effective utilization of these assets, thereby ensuring profit generation and mitigating financial distress (Huang et al., 2022).

4.4. The financial size moderates the CSR, intellectual capital, and operational capacity to the financial distress relationship

The findings of the present study demonstrate that company size exerts a substantial influence on operational capacity, as evidenced by a path coefficient of 0.067 and a p-value of 0.029. Consequently, large corporations possess the capacity to strategically allocate their resources, thereby ensuring the financing of their operations. The company's high asset turnover ratio is a key factor contributing to its ability to generate substantial sales. Consequently, enhanced profitability is indicative of improved fund circulation within the company, thereby facilitating profit generation. The efficient use of resources to drive transactions should yield significant organizational benefits, increase financial performance, and reduce financial difficulties (Li et al., 2020). Organizations of considerable size possess a distinct advantage in the management of their resources, resulting in a marked increase in their functional capabilities. It enables them to strike a greater number of deals and achieve their profit targets with a higher degree of efficiency compared to organizations of smaller sizes (Huang et al., 2022).

The recent findings challenge the prevailing notion that firm size exerts a moderating influence on the relationship between CSR and financial distress. Irrespective of the company's size, it is obligated to disclose its CSR. This initiative is in alignment with the company's overarching commitment to integrating CSR as a strategic framework for environmental and social responsibility. The information can facilitate enhanced communication, transparency, and investor confidence for businesses of all sizes (García-Sánchez et al., 2019). A firm's ability to moderate intellectual capital is not dependent on its financial distress. Both big and small firms' intellectual capital will be efficiently managed in their assets. This strategy aims to guarantee continuous operations, thereby preventing potential financial (Cenciarelli et al., 2018).

5. CONCLUSION

The empirical research has demonstrated that CSR disclosure contributes to financial stability and can

even minimize the risk conditions of financial distress. CSR initiatives exert a profound and enduring influence on the sustainability of its business operations and its public reputation. The substantial evidence indicates that effective intellectual capital management can mitigate the risk of corporate financial distress. The knowledge and innovation capabilities embodied in intellectual capital have been shown to enable the development of competitively advantaged products and services. These advancements, in turn, have been demonstrated to increase revenues and help firms overcome financial stress. The investigation's findings on the company's operating capacity have the potential to mitigate the risk of financial distress. The ability to be productive while minimizing expenses can enable a company to explore new market opportunities and alleviate financial pressures. It has been demonstrated to enhance profit margins.

There is evidence in the moderation relationship that firm size strengthens the relationship between operating capacity and financial distress. Big companies have a high level of asset turnover, resulting in a significant increase in sales. The higher the assets, the better the turnover of funds in the company to generate profits. High profits will have an impact on the company because they can minimize the occurrence of financial distress. There is not enough evidence that company size can moderate the relationship between CSR and intellectual capital in financial distress.

This study has important implications for business sustainability amid intense global economic competition. The findings can be utilized by management as strategic indicators for decision-making to prevent financial distress. Investors and stakeholders may also use the results as a basis for investment decisions and performance evaluation of the company. The weakness of this research is that it only focuses on one sector of companies registered in Indonesia, so the findings cannot be generalized to companies outside Indonesia. However, this research can be a reference for the importance of companies paying attention to CSR, intellectual capital, and operational capacity to reduce the occurrence of financial distress. What is very impressive from this research is the important role of the government in protecting investors through establishing regulations.

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