



**THE EFFECT OF PROFITABILITY, LEVERAGE, AND FIRM SIZE ON
CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE IN
TRANSPORTATION AND LOGISTICS SECTOR COMPANIES LISTED ON
THE INDONESIA STOCK EXCHANGE (IDX) FOR THE 2020-2024 PERIOD**

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Abstract

This study analyzes the effect of profitability, leverage, and firm size on Corporate Social Responsibility (CSR) disclosure in transportation and logistics sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period. The urgency of the study is based on the increase in greenhouse gas emissions in the sector, which requires special attention regarding sustainability reporting. Using a causal quantitative design, a sample of 18 companies (90 observations) was selected through a purposive sampling method. Data analysis utilized panel data regression. The results show that profitability and leverage have no significant effect on CSR disclosure. However, firm size has a significant positive effect. The Adjusted R-Squared value indicates that the independent variables can explain the CSR disclosure variance by 51.16%. These findings support the integration of legitimacy and stakeholder theories, where large-scale companies with high public visibility proactively use CSR reporting as a strategic instrument to respond to global stakeholders' pressures. Therefore, management is advised to continuously strengthen the transparency of social responsibility information, while regulators should formulate stricter guidelines for smaller entities.

Keywords: Profitability, Leverage, Firm Size, Corporate Social Responsibility



INTRODUCTION

In the modern era, the corporate framework has undergone a fundamental shift wherein companies are no longer viewed solely as profit-maximizing entities (Monica et al., 2025), but rather as organizations that must balance the three pillars of the Triple Bottom Line (3P): Profit (Economic), People (Social), and Planet (Environmental) (Elkington, 1998). This concept emphasizes the critical integration of economic achievement with social welfare and environmental sustainability (Prabowo & Kusumawardhani, 2022). A tangible manifestation of this commitment to sustainability is the implementation of Corporate Social Responsibility (Nerja & Sánchez, 2025). In Indonesia, the urgency of such disclosure is reinforced by Law Number 40 of 2007, Financial Services Authority Regulation (POJK) Number 51/POJK.03/2017, and Financial Services Authority Circular Letter (SE OJK) Number 16/SEOJK.04/2021, which mandate listed companies to prepare sustainability reports to promote public transparency (Danduru et al., 2024).

The transportation and logistics sector occupies a vital position in the Indonesian economy; however, it also has a substantial environmental impact. According to data from Statistics Indonesia (Badan Pusat Statistik, 2025), total Greenhouse Gas (GHG) emissions from the transportation sector have continued to increase, reaching 81,565 GgCO₂e in 2023, primarily driven by fossil-fuel-dominated energy consumption. Unfortunately, these elevated environmental risks have not been matched by a consistent awareness of CSR disclosure. Preliminary studies reveal a significant gap in the quality of CSR reporting based on GRI-G4 indicators among transportation and logistics companies during the 2020-2024 period. This disparity in voluntary CSR disclosure practices is indicated to be influenced by internal firm characteristics, namely profitability, leverage, and firm size.

In addition to the aforementioned phenomena, prior research continues to exhibit inconsistent findings or research gaps. Regarding the Profitability variable, (Mahalistianingsih & Yuliandhari, 2021) identified a positive effect, which contrasts with (Dharmawan Krisna & Suhardianto, 2016) who found no influence. For the Leverage variable, (Ruroh & Latifah, 2018) found a positive effect, while (Wuttichindanon, 2017) observed no significant impact. In terms of Firm Size, (Ntantamis & Zhou, 2025) found a positive influence, differing from (Wijaya & Novatiani, 2024) who concluded there was no effect. The scarcity of studies in the transportation sector during the period of post-pandemic volatility (2020–2024) provides this research with a crucial novelty to bridge these literature gaps.



LITERATURE REVIEW

This study integrates Legitimacy Theory and Stakeholder Theory to elucidate the motivations behind corporate CSR disclosure. According to Legitimacy Theory, organizations operate under a 'social contract' with society (Dowling & Pfeffer, 1975). Consequently, firms strive to attain social legitimacy by ensuring their operational activities align with societal values and expectations. This alignment is especially critical for the transportation and logistics sector, given its significant contribution to greenhouse gas emissions. Furthermore, this perspective is augmented by Stakeholder Theory (Freeman, 1984), this theory explains that CSR is not only about image in the eyes of the general public, but also a way for companies to respond to direct demands from important parties, such as investors, government, and environmental activists.

Profitability reflects a firm's financial capacity to generate economic value added. From the perspective of Stakeholder Theory, companies that achieve high profitability possess the financial flexibility (*slack resources*) to invest in green logistics without compromising their core operations. The disclosure of such environmental investments subsequently becomes a vital mechanism to legitimize their financial success amidst public scrutiny over industrial pollution (Dowling & Pfeffer, 1975). This is consistent with the findings of (Mahalistianingsih & Yuliandhari, 2021), which demonstrate a positive relationship between profitability and CSR disclosure.

H1: Profitability has a positive effect on Corporate Social Responsibility disclosure

Leverage signifies the degree of a company's reliance on debt to fund its operational activities. The transportation industry is fundamentally capital-intensive, which establishes creditors as the most dominant stakeholders. Drawing upon Stakeholder Theory, companies with high leverage are motivated to provide more comprehensive CSR disclosures to reassure creditors of their capacity to mitigate environmental risks. Such transparency is proven effective in reducing information asymmetry and providing signals of openness, leading to a perception of lower default risk (Kumar & Pathak, 2025). This reporting transparency acts as both a legitimizing measure and a strategy to maintain funding (Dowling & Pfeffer, 1975). This is supported by (Ruroh & Latifah, 2018) whose research indicates that leverage has a positive effect on CSR disclosure.

H2: Leverage has a positive effect on Corporate Social Responsibility disclosure



Firm size represents the operational scale of an entity, which can be measured by its total assets. Based on Legitimacy Theory, large-scale transportation companies operate massive fleets; consequently, their carbon footprints and social impacts are highly exposed to the public. This high visibility precipitates substantially greater social pressure compared to smaller enterprises (Ntantamis & Zhou, 2025). Concurrently, Stakeholder Theory elucidates that large logistics companies are generally integrated into global supply chains, thus subjecting them to pressure from a broader network of stakeholders, including compliance demands from multinational clients (Atlas et al., 2026). To respond to these dual pressures and safeguard their reputation, large corporations are typically more compelled to prepare comprehensive reports. This argument is supported by the findings of (Ntantamis & Zhou, 2025), who found that firm size exerts a positive effect on CSR disclosure.

H3: Firm Size has a positive effect on Corporate Social Responsibility disclosure.

RESEARCH METHOD

This study employs a causal quantitative approach to examine the effects among variables, utilizing a basic research design aimed at expanding the body of knowledge (Sekaran & Bougie, 2016). The research population comprises all transportation and logistics sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period, total 39 entities. The sample was selected using a purposive sampling technique, resulting in a final sample of 18 companies, which yielded a total of 90 firm-year observations.

The dependent variable in this research is Corporate Social Responsibility (CSR) Disclosure. CSR disclosure is defined as the information disseminated by a company regarding its social responsibility activities, encompassing economic, environmental, and social dimensions (Ruroh & Latifah, 2018). The extent of CSR disclosure is measured using the Corporate Social Responsibility Disclosure Index (CSRDI), which adheres to the Global Reporting Initiative (GRI) G4 standards, totaling 91 indicator items. The calculation formula is as follows:

$$CSRDI = \frac{\text{Total items disclosed by the company}}{91 \text{ expected items based on GRI-G4 standards}}$$

The independent variables in this study consist of profitability, leverage, and firm size. The Profitability variable (X1) represents a company's ability to generate profit with the objective of enhancing shareholder value (Ruroh & Latifah, 2018), which is measured using the Return on Assets (ROA) ratio with the following formula:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$



The Leverage variable (X2) indicates the degree of a company's reliance on debt as a funding source to conduct its operational activities (Fadilah et al., 2024), which is proxied by the Debt to Equity Ratio (DER) using the following formula:

$$DER = \frac{Total Liabilities}{Total Equity}$$

The final independent variable, Firm Size (X3), describes the magnitude of a company's operational scale as indicated by its total assets (Ruroh & Latifah, 2018), with the measurement formulated as follows:

$$SIZE = Ln (Total Assets).$$

Data analysis was conducted using a panel data regression model. The analytical procedure required an initial selection of the appropriate estimation technique to determine the best-fitting model, subsequently followed by classical assumption testing and hypothesis testing.

RESULTS AND DISCUSSION

This study was conducted on transportation and logistics companies listed on the Indonesia Stock Exchange (IDX) over the 2020–2024 period, resulting in a total of 90 firm-year observations. The results of the descriptive statistical analysis are presented as follows:

Descriptive Statistic

Descriptive analysis is utilized to provide a comprehensive overview of the data, thereby identifying the minimum, maximum, mean, and standard deviation values for the variables under investigation. (Dewi & Sedana, 2019).

Table 1
Descriptive Statistic

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	90	-37,96	32,10	3,8490	9,56722
DER	90	-19,62	5,56	0,5267	2,95403
SIZE	90	24,04	31,01	27,2872	1,82904
CSRDI	90	0,11	0,87	0,3688	0,14730

Source: Research Data, 2026

Based on Table 1, the descriptive statistics of the obtained data indicate that the Profitability variable (X1), proxied by ROA, has a minimum value of -37,96 and a maximum value of 32,10, with a mean of 3,8490 and a standard deviation of 9,56722. Furthermore, the Leverage variable (X2), proxied by DER, records a minimum value of -19,62 and a maximum of 5,56, with a mean of 0,5267 and a standard deviation of 2,95403. For the Firm Size variable (X3), measured using the natural logarithm of total assets, the minimum value obtained is 24,04



and the maximum is 31,01, with a mean of 27,2872 and a standard deviation of 1,82904. Meanwhile, for the dependent variable, CSR Disclosure (Y), the data demonstrates a minimum value of 0,11 and a maximum of 0,87, with a mean of 0,3688 and a standard deviation of 0,14730.

Table 2
Chow Test

Table with 4 columns: Effect Test, Statistic, d.f., Prob. Rows include Cross-section F and Cross-section Chi-Square.

Source: Research Data, 2026

The Chow test results in Table 2 demonstrate that the probability significance is less than 0,05, namely 0,0000 < 0,05, indicating that the fixed effect model is more appropriate than the common effect model.

Table 3
Hausman Test

Table with 4 columns: Test Summary, Chi-Sq. Statistic, Chi-Sq. d.f., Prob. Row includes Cross-section F.

Source: Research Data, 2026

The Hausman test results in Table 3 demonstrate that the probability significance is less than 0,05, namely 0,0041 < 0,05, indicating that the fixed effect model is more appropriate than the random effect model.

Table 4
Fixed Effects Model Test Results

Table with 5 columns: Variable, Coefficient, Std. Error, t-Statistic, Prob. Rows include C, ROA, DER, SIZE, Adjust R-Squared, and Prob (F-Statistic).

Source: Research Data, 2026

Based on the results presented in Table 4, the resulting panel data regression equation is as follows:

Y = -3.636294 - 1.28e-05*ROA - 0.004221*DER + 0.001469*SIZE



The F-test results yield an F-statistic probability of 0,000000. This demonstrates that the Prob. F-statistic value is $0,000000 < 0,05$; therefore, it can be concluded that the variables of profitability, leverage, and firm size simultaneously influence CSR disclosure. The Adjusted R-squared value is noted to be 0,511625, or 51,1625%. This indicates that Profitability (X1), Leverage (X2), and Firm Size (X3) can explain 51,1625% of CSR disclosure (Y), while the remaining 48,8375% is explained or influenced by other factors outside the independent variables of this study.

Discussion

The Effect of Profitability on Corporate Social Responsibility Disclosure (H1)

The test results indicate that the profitability variable (ROA) has a significance level of 0,9943 ($> 0,05$). This demonstrates that profitability exerts no influence on CSR disclosure; thus, the first hypothesis (H1) is rejected. This finding suggests that the level of net profit is not a determining factor for management transparency policies within the transportation and logistics sector. From the perspective of Stakeholder Theory (Freeman, 1984), this phenomenon can be elucidated by the industry conditions during the 2020–2024 period. This sector is highly sensitive to operational costs and fluctuations in fuel prices. Companies generating profits tend to prioritize the allocation of these funds toward post-pandemic business recovery, physical asset maintenance (fleet), or route expansion, rather than allocating them for the costs of voluntary CSR reporting (Samarawickrama et al., 2025). Consequently, profit is not automatically converted into extensive social disclosure (Nur et al., 2022). The results of this study are consistent with research by (Aprianto et al., 2024; Dharmawan Krisna & Suhardianto, 2016; Ulla et al., 2023) which also found no effect of profitability on corporate social responsibility disclosure.

The Effect of Leverage on Corporate Social Responsibility Disclosure (H2)

The test results for the leverage variable (DER) indicate a significance value of 0,6227 ($> 0,05$). This signifies that leverage does not influence CSR disclosure; consequently, the second hypothesis (H2) is rejected. Although Stakeholder Theory (Freeman, 1984) assumes that high levels of debt will trigger greater demands for transparency from creditors, the results of this study demonstrate a different reality on the ground. In transportation companies, creditors appear to prioritize liquidity ratios, cash flow stability, and tangible asset collateral (such as vehicles and operational properties) over the quality of social responsibility reporting. As a result, management does not perceive an urgent need to utilize CSR disclosure as a signaling mechanism to creditors to secure funding (Saeed et



al., 2024). The findings of this study support the research of (Danduru et al., 2024; Wuttichindanon, 2017; Zahroh et al., 2023) which state that leverage has no significant effect on CSR disclosure.

The Effect of Firm Size on Corporate Social Responsibility Disclosure (H3)

The test results prove that firm size (SIZE) has a significance level of 0,0000 ($< 0,05$) with a positive coefficient of 0,001469. This finding indicates that firm size has a positive and significant effect on CSR disclosure; therefore, the third hypothesis (H3) is accepted. This result is highly aligned with the integration of Legitimacy Theory and Stakeholder Theory. Large-scale transportation companies, represented by massive total assets, operate hundreds or even thousands of fleets daily. Consequently, their carbon footprint and environmental impacts tend to attract greater public attention. Based on Legitimacy Theory, this high visibility triggers intense social pressure, necessitating management to prepare comprehensive CSR reports to protect the company's reputation and legitimacy. Furthermore, from a Stakeholder Theory perspective, large logistics firms are generally integrated into global supply chains. They face direct ESG (Environmental, Social, and Governance) compliance demands from their multinational clients, making CSR reporting a vital component of the corporate strategy (Atlas et al., 2026). This result is consistent with research by (Gamerschlag et al., 2011; Mendra & Saitri, 2025; Ntantamis & Zhou, 2025) which states that the larger the scale of a company, the more extensive its CSR disclosure.

CONCLUSION

This study concludes that among the three internal factors examined, only firm size exerts a significant influence on Corporate Social Responsibility (CSR) disclosure within the Indonesian transportation and logistics sector for the 2020–2024 period, whereas profitability and leverage show no significant effects. These findings reinforce the integration of Legitimacy Theory and Stakeholder Theory, wherein large-scale enterprises with massive carbon footprints and high public visibility tend to utilize CSR reporting as a strategic instrument to respond to global stakeholder pressures and maintain social legitimacy. Conversely, the lack of influence from profit capacity and debt structures indicates that management in this capital-intensive industry prioritizes post-pandemic operational recovery and liquidity over expanding sustainability transparency. As a policy implication, the Financial Services Authority (OJK) is encouraged to formulate more binding reporting guidelines for small and medium-sized enterprises to ensure more equitable transparency quality. Meanwhile, investors are expected to begin incorporating ESG reporting compliance as a long-term risk mitigation indicator (Samarawickrama et al., 2025). Given that financial fundamentals have not fully



explained this disclosure phenomenon, future research is suggested to explore non-financial variables, such as corporate governance mechanisms and the implementation of carbon tax regulations, as well as to employ qualitative approaches to dissect managerial motivations more comprehensively.

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