

# **A Review of the Determinants of Corporate Social Responsibility (CSR) Disclosure in Energy Sector Companies Listed on the Indonesia Stock Exchange (IDX)**

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## **Abstract**

*The primary focus of this study is to analyze how corporate scale, profitability levels, and debt ratios influence Corporate Social Responsibility (CSR) reporting policies among energy sector issuers on the Indonesia Stock Exchange (IDX) between 2022 and 2024. Adopting a quantitative approach, this research utilizes a panel data regression analysis model encompassing a sample of 24 business entities within the energy industry. Empirical findings confirm that total company assets exert a positive and significant impact on CSR transparency, whereas both profitability and leverage variables were found to have no statistically significant effect. These results indicate that organizational capacity or physical firm size serves as the predominant driver for social disclosures, outweighing the influence of internal financial performance or capital structure.*

**Keywords:** *CSR, company size, profitability, leverage*

## **A. INTRODUCTION**

In contemporary corporate governance practices, Corporate Social Responsibility (CSR) has transformed into a crucial element. This development is driven by increasing public demands that business entities should not merely pursue financial profit, but also assume responsibility for the social and environmental consequences of their operational activities. In order to obtain recognition and support from stakeholders, companies disclose CSR information in sustainability reports in accordance with the principles of legitimacy theory. In this regard, Oktavianawati et al. (2019), in their empirical study in Indonesia, revealed that the extent of CSR information disclosure is strongly influenced by specific firm characteristics, including company size, profitability, and leverage structure. These findings indicate that the financial characteristics of a company play a role in determining the level of CSR disclosure. However, the influence of these characteristics may vary across different industrial sectors. Therefore, it is important to examine this issue within sectors that carry high environmental risks, such as the energy sector.

The energy sector is highly vulnerable to negative environmental impacts, including emissions, waste generation, and ecosystem degradation. Ideally, energy companies should therefore possess strong motivation and responsibility to implement CSR practices seriously and transparently. However, internal data derived from energy company reports indicate that the level of CSR disclosure within this sector has not been consistent across several periods.

To illustrate the condition of CSR disclosure among energy companies, the Corporate Social Responsibility Disclosure Index (CSRDI) for the period 2022–2024 is presented in the following table.

**Table 1. CSR Disclosure Level in Energy Companies**

<b>Year</b>	<b>CSRDI (%)</b>
2022	66,07
2023	62,35
2024	66,82

*Sumber: Energy Company Annual Reports (2025)*

Table 1 shows that the level of CSR disclosure (CSRDI) in energy companies during the 2022–2024 period was unstable. In 2022, energy companies disclosed CSR information at 66.07%, but this level declined to 62.35% in 2023. This indicates that the commitment of the energy sector in publishing CSR reports has not been stable from year to year. The fluctuation is evident in the data, although in 2024 the disclosure level slightly increased again to 66.82%.

This phenomenon indicates that although energy companies possess significant potential for environmental impact, their commitment to disclosing social responsibility activities remains inconsistent and may not yet be sustainably prioritized. Such inconsistency may reduce public perceptions regarding the credibility of CSR practices within energy companies and raise questions about the effectiveness of CSR implementation in a highly critical sector (Oktavianawati et al., 2019). Corporate financial conditions, regulatory pressure, and fluctuating public expectations are key factors influencing energy companies in presenting CSR information, which ultimately results in unstable disclosure levels. When these factors weaken, the company's commitment to reporting CSR activities also declines, thereby leading to inconsistent disclosure practices (Oktavianawati et al., 2019).

The capacity of companies to allocate resources, as well as the level of public attention they receive, are reasons why larger companies tend to be more active in reporting their CSR activities. This study positions firm size, profitability, and leverage as crucial internal variables that determine the extent of social responsibility information disclosed by business actors in the energy sector (Syilfania, 2022).

Meanwhile, the findings of Kartika Dewi and Abundanti (2019) show that the influence of profitability and leverage is not always consistent. Profitability has a positive effect, whereas leverage does not show a significant influence. This inconsistency among previous research findings indicates the existence of a research gap, particularly in the context of energy companies in Indonesia. Such inconsistency may be caused by differences in corporate financial conditions, levels of public pressure, and internal CSR policies among companies. Furthermore, previous studies have used different observation periods, samples, and CSR measurement methods, which have resulted in varied findings.

Therefore, research examining the influence of company size, financial performance, and debt ratio on CSR transparency becomes highly crucial, especially in the energy industry, which possesses a high ecological risk profile and specific operational characteristics.

Through observations of energy companies listed on the Indonesia Stock Exchange (IDX), this study aims to examine the extent to which organizational size, profitability, and leverage determine the breadth of corporate social responsibility disclosure. It is expected that the results of this study will provide empirical contributions to CSR literature and offer practical recommendations for energy company management in enhancing transparency and sustainable social-environmental commitments. Based on the background described above, the problem addressed in this study is how firm size, profitability, and leverage simultaneously and partially influence the extent of CSR disclosure among energy companies listed on the Indonesia Stock Exchange during the 2022–2024 observation period.

## **B. LITERATURE REVIEW**

The sustainability approach in the tourism supply chain requires a comprehensive understanding of the key dimensions that shape its strategic structure. Previous studies have shown that the successful implementation of SSCM cannot be separated from four main dimensions: economic, social,

### **Legitimacy Theory**

The concept of legitimacy emphasizes that the sustainability of a business entity depends on the alignment between the company's operations and the values, social norms, and expectations prevailing within society so that its existence gains public acceptance. To obtain such legitimacy, companies disclose information regarding their activities. Energy companies, which possess a high potential for environmental risks, are generally more motivated to disclose CSR information extensively in order to maintain their reputation and gain public trust.

### **Stakeholder Theory**

The presence of various parties such as investors, financial institutions, regulators, employees, and the community forms the basis for companies to fulfill their responsibilities comprehensively, as emphasized in Stakeholder Theory. Therefore, companies are required to provide relevant, accurate, and transparent information through CSR disclosure, particularly in high-risk sectors such as the energy industry.

The structure of this research positions Corporate Social Responsibility (CSR) disclosure as the dependent variable, which is predicted to be influenced by three independent variables: firm size, profitability, and leverage.

### **Corporate Social Responsibility (CSR)**

Corporate Social Responsibility (CSR) represents a manifestation of corporate accountability that integrates financial, social, and environmental aspects into the entire spectrum of business activities as a commitment to stakeholders (Triannanda Siahaan et al., 2025). CSR disclosure includes the presentation of information related to environmental programs, community empowerment, good corporate governance practices, waste management, and contributions to sustainable development.

CSR disclosure in energy companies is particularly important because this sector carries high environmental risks; therefore, transparency becomes essential to maintain public trust. Malau et al. (2024) state that CSR disclosure has a significant impact on company performance as measured by Return on Assets (ROA), indicating that CSR can function as one of the factors supporting the improvement of corporate performance.

### **Firm Size**

Firm size represents the capacity of an organization and can be measured using several proxies, including total assets, sales revenue, and the number of employees managed by the company (Paulus Tahu et al., 2025). Large companies generally have greater public exposure, more substantial resources, and stronger regulatory pressure; therefore, they tend to disclose CSR information more extensively than smaller firms. In addition, large companies strive to maintain their reputation and social legitimacy by enhancing information transparency.

### **Profitability**

Profitability refers to a company's efficiency in generating financial returns from its operational activities. A high level of profitability provides companies with greater financial flexibility, enabling them to implement and report CSR activities more comprehensively compared to companies with lower profit margins (Muhammad Fikri Haikal et al., 2025).

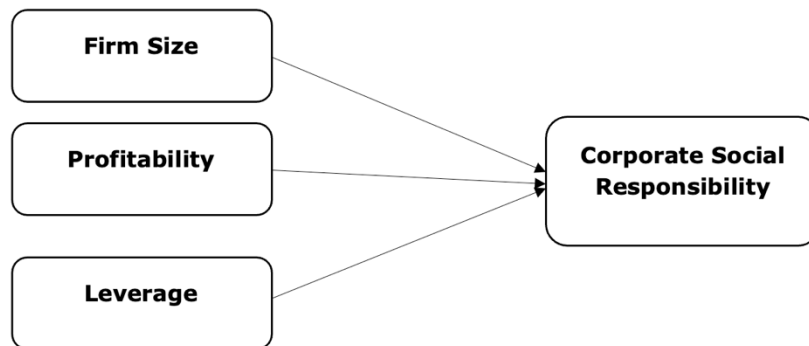
Profitability also serves as a positive signal to investors. However, some companies with lower profitability may also increase CSR disclosure in order to improve their corporate image. The variation in findings across previous studies indicates that the relationship between profitability and CSR disclosure remains an ongoing academic debate without a definitive conclusion.

### **Leverage**

Leverage is an indicator that reflects the degree to which a business entity relies on external financing or borrowed funds to support its operations (Reihan Idrus et al., 2025). Efforts to convince creditors regarding the company's risk management are often carried out through increased CSR disclosure, particularly for companies that depend heavily on external capital.

However, on the other hand, a high debt burden may limit a company's financial capacity to finance social activities. This contradiction results in inconsistent findings regarding the influence of leverage on the extent of CSR disclosure across various studies in the literature.

**Figure. 1 Conceptual Framework**



**H1: Firm size has a positive effect on CSR disclosure.**

The magnitude of a company's assets and operations is closely related to the level of exposure to stakeholder demands. Within the framework of legitimacy theory, more comprehensive CSR disclosure becomes an instrument for large companies to align their activities with public norms. The relevance of firm size as a positive driver of CSR disclosure has been empirically demonstrated by Rindawati (2015) and more recent research by Ramadhan et al. (2025). However, some anomalies exist in the literature; Santi and Wardani (2018) argue that organizational size does not automatically increase the intensity of CSR reporting.

**H2: Profitability has a positive effect on CSR disclosure.**

Profitability is considered a crucial resource that enables companies to fulfill their responsibilities to the public more broadly. Higher profit levels create flexible financial reserves, allowing companies to allocate resources for CSR activities (Amaliyah et al., n.d.; Husni et al., 2025). This is consistent with the principles of stakeholder theory, which emphasize the fulfillment of the rights of non-shareholder stakeholders. However, inconsistent research findings are reported by Luh and Rahmantari (n.d.), who conclude that profitability does not have a significant effect on the intensity of social information disclosure.

**H3: Leverage has a negative effect on CSR disclosure.**

Leverage reflects the extent to which a company relies on external financing to support its operations. High levels of debt pressure often force companies to be more selective in allocating additional expenditures, such as CSR activities, in order to meet their obligations to creditors. Empirical inconsistencies regarding this relationship are evident in the findings of Kristin and Anik (2025), who report a positive influence. In contrast, more recent studies by Himawan and Farokah (2024) as well as Nur Maulidia and Yunies Edward (2025) conclude that high debt ratios do not encourage improvements in the quality of corporate social reporting.

**H4: Firm size, profitability, and leverage simultaneously influence CSR disclosure.**

Firm size, profitability, and leverage represent internal financial characteristics of companies that collectively may influence CSR policies and the level of CSR disclosure. Therefore, simultaneous testing is required to examine the ability of these three variables to explain variations in CSR disclosure.

**C. METHODOLOGY OF RESEARCH**

Methodologically, this study applies a quantitative approach with an associative research design to examine the relationships among variables. The observation focuses on companies in the energy sector listed on the Indonesia Stock Exchange (IDX) during the period of 2022–2024. The data analyzed in this research consist of secondary data obtained from the official annual reports of each company. After determining the sampling criteria, the study describes the operational variables used in the research so that they can be quantitatively analyzed. Descriptive statistical analysis is employed to examine the minimum, maximum, and mean values of each variable in order to provide an overview of the data characteristics.

Furthermore, the study conducts panel data analysis to test the relationships among variables. The selection of the most appropriate panel regression model is determined using the Chow test, Hausman test, and Lagrange Multiplier (LM) test. The selected panel regression model is then applied to analyze the effect of independent variables on the dependent variable through regression coefficient testing, the F-test, the coefficient of determination ( $R^2$ ), and the t-test.

**D. RESULT AND DISCUSSION**

**Descriptive Statistical Test**

**Table. 2 Descriptive Statistics Test**

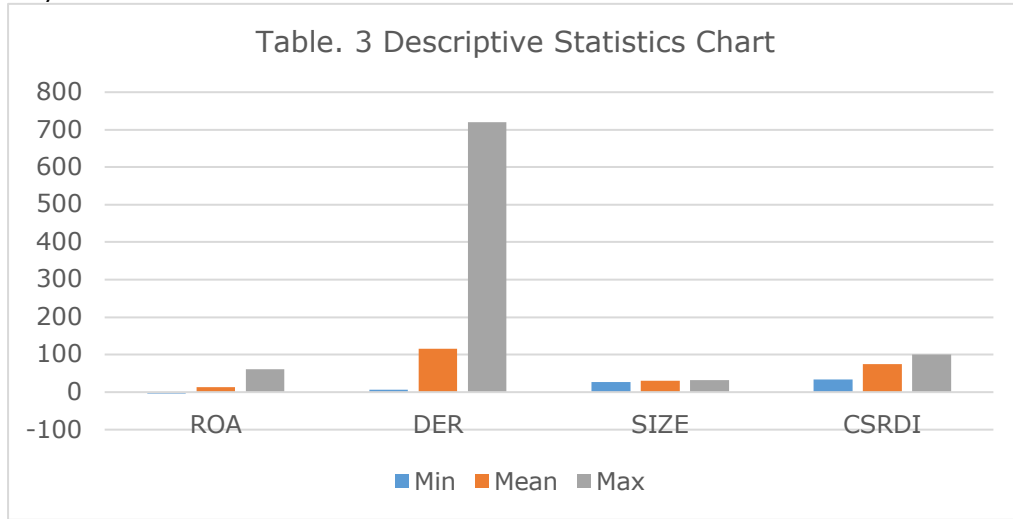
Variabel	Mean	Min	Max
ROA	13,74%	-4,15%	61,63%
DER	116,10%	5,87%	720,30%
SIZE	30,62	27,22	32,76%
CSRDI	74,48%	34,19%	100%

Source: Data processed from annual reports (2025)

Based on the statistical summary presented in Table 4.1, the data profile of the sampled companies shows considerable variation. The ROA variable indicates an average profitability

effectiveness of 13.74%, while the average debt burden (DER) reaches 116.10%. In terms of firm size, the SIZE variable records a value of 30.62, followed by the CSR disclosure index, which has an average of 74.48%.

The relatively wide gap between the minimum and maximum values across all variables indicates the heterogeneity of financial conditions and social responsibility commitments within the energy industry.



Source: Data processed using Excel (2025)

Table. 3 presents the descriptive statistics of the research variables, including ROA, DER, SIZE, and CSRDI. It can be observed that the DER variable has the widest range of values compared to the other variables, indicating a high variation in the companies' financing structures.

The relatively high average value of CSRDI suggests that entities in the energy sector have demonstrated an adequate level of transparency commitment. This high figure reflects corporate awareness in documenting their social contributions and environmental conservation efforts comprehensively to the public.

**Tabel. 4 Hasil Uji Chow**

Effects Test	Statistic	d.f.	Prob
Cross-section F	4.498226	(23,44)	0.0000
Cross-section Chi-square	87.074061	23	0.0000

Source: Output from EViews 13

The selection between the Common Effect Model (CEM) and the Fixed Effect Model (FEM) was conducted using the Chow Test procedure. Referring to the results presented in Table 4.3, the significance values for both Cross-section F and Cross-section Chi-square are 0.0000. Since these values are far below the threshold of 0.05, the null hypothesis is rejected. Therefore, the Fixed Effect Model (FEM) is considered more appropriate and representative than the Common Effect Model (CEM).

**Tabel. 5 Hausman test**

Test Summary	Chi-sq. Statistic	Chi-sq. d.f.	Prob
Cross-section random	6.157702	4	0.1877

Source: Output from EViews 13

The Hausman test is used to compare the efficiency between the Fixed Effect Model (FEM) and the Random Effect Model (REM). Based on Table 4.4, the probability value is 0.1877, which is higher

than the 5% significance level ( $0.1877 > 0.05$ ). Therefore, the null hypothesis is accepted, indicating that the Random Effect Model (REM) is more appropriate than FEM.

**Tabel. 6 Lagrange Multiplier test**

	<b>Cross-section</b>	<b>Test Hypothesis Time</b>	<b>Both</b>
Breusch-Pagan	16.59585 (0.0000)	0.529788 (0.4667)	17.12564 (0.0000)

Source: Output from EViews 13

The Breusch-Pagan LM test produced a probability value of 0.0000, indicating that the Random Effect Model (REM) is statistically superior to the Common Effect Model (CEM). Consistent results from the LM and Hausman tests confirm that REM is the most appropriate panel regression model for analyzing CSR disclosure in the energy sector during the 2022–2024 period.

**Tabel. 7 Multiple Linear Regression Analysis of Panel Data Using the Random Effect Model (REM)**

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	-1.172326	0.580838	-2.018335	0.0476
ROA	-0.209993	0.141154	-1.487690	0.1415
DER	0.010661	0.020365	0.523489	0.6024
SIZE	0.034497	0.020190	2.849509	0.0058

Source: Output from EViews 13

The Random Effect Model (REM) estimation used in this study successfully maps the influence of predictor variables on CSR disclosure. The results show that the constant value of -1.172326 is significant at the 5% significance level ( $p < 0.05$ ), reflecting the baseline condition of the dependent variable when the independent variables are assumed to be constant.

Furthermore, the ROA coefficient of -0.209993 indicates that an increase in profitability may potentially reduce the extent of CSR disclosure. Meanwhile, the DER value of 0.010661 suggests that companies with higher reliance on debt financing tend to disclose social responsibility information more extensively. In addition, the SIZE coefficient of 0.034497 demonstrates that larger companies tend to have higher levels of information transparency, including broader CSR disclosure.

**Tabel. 8 Regression Significance Test (F-Test)**

R-squared	0.284723
Adjusted R-squared	0.242020
S.E. of regression	0.094431
F-statistic	6.667515
Prob(F-statistic)	0.000140

Source: Output from EViews 13

The F-test was conducted to evaluate the joint significance of all independent variables in the model. The results show an F-statistic value of 6.667515 with a probability of 0.000140, which is below 0.05. This indicates that profitability (ROA), leverage (DER), and firm size (SIZE) simultaneously have a significant effect on CSR disclosure. Meanwhile, the  $R^2$  value of 0.284723 suggests that 28.47% of the variation in CSR disclosure can be explained by these three variables, while the remaining 71.53% is influenced by other factors outside this study.

**Table. 9 T test**

Variabel	Coefficient	Std. Error	t-Statistic	Prob
C	-1.172326	0.580838	-2.018335	0.0476

ROA	-0.209993	0.141154	-1.487690	0.1415
DER	0.010661	0.020365	0.523489	0.6024
SIZE	0.057531	0.020190	2.849509	0.0058

The t-test was conducted to identify the individual contribution of each independent variable. Based on Table 4.8, firm size is the only predictor that has a positive and significant effect on CSR transparency, with a p-value of 0.0058 ( $p < 0.05$ ). This finding indicates that broader CSR disclosure is strongly related to the size of a company's assets. Meanwhile, financial performance (ROA) and debt structure (DER) do not show statistical significance, as their probability values (0.1415 and 0.6024) exceed the 0.05 significance threshold.

## **E. CONCLUSION**

Research on CSR disclosure in the energy sector during 2022–2024 concludes that firm size is a determinant factor that has a positive and significant influence. This finding is consistent with the efforts of large companies to meet the expectations of their stakeholders. Meanwhile, profitability and leverage are not proven to significantly affect the extent of CSR disclosure. Therefore, the breadth of social and environmental information disclosed by energy companies is primarily driven by organizational scale rather than by profit levels or dependence on external financing.

Based on these findings, energy companies are expected to improve the quality and consistency of CSR disclosure as part of their corporate sustainability strategy, regardless of profitability or leverage conditions. Future research is recommended to incorporate non-financial variables, such as environmental compliance, and governance variables, such as managerial and institutional ownership. Extending the observation period and including companies from sectors beyond energy may also improve the generalizability of findings and provide a more comprehensive understanding of the factors influencing CSR disclosure.

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