

# Uncertain Supply Chain Management

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## Corporate governance, financial performance and sustainability disclosure: Evidence from Indonesian energy companies

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### ABSTRACT

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The research investigates the influence of corporate governance and financial performance on the disclosure of sustainability reports (DSR) in energy sector companies listed on the Indonesia Stock Exchange. The research population was 71 energy sector companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2021 period, and 10 of the 71 companies that met the sample criteria were the unit of analysis. The data analysis method for the DSR determinant estimation model uses panel data regression analysis. The research results show that liquidity hurts DSR, while company size has a positive impact. Profitability, capital structure, foreign Ownership, and independent commissioners have yet to be proven to determine DSR. These findings demonstrate that corporate governance cannot encourage companies to carry out DSR according to stakeholder expectations as a legitimacy mechanism. Therefore, independent commissioners and foreign Owners can pressure companies to carry out DSR optimally by applicable regulations and achieve sustainable performance.

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## 1. Introduction

Indonesia is rich in abundant natural resources. These natural riches should be utilized and managed optimally for the welfare of its people. Therefore, in managing natural resources, the focus should be on preservation and conservation to protect the sustainability of existing resources (natural resource-oriented). Natural resource management should pay attention to human needs and a sustainable environment. Environmental awareness and commitment to sustainability have increased, so the role of corporate governance in shaping ecological performance and corporate sustainability has received severe attention (Githaiga & Kosgei, 2023). This research utilizes a sample of companies in the energy sector. The energy sector plays a crucial role as one of the primary pillars of a country's economy and functions as a driving force for national progress (Rheynaldi et al., 2023). The impact generated by the energy sector has far-reaching implications across various fields, including finance, fiscal matters, welfare, and the environment. Considering the significant effect of the energy sector's role in a nation's economy, companies operating in this sector must be committed to creating a good reputation and prioritizing enhancing their value and reputation. All company activities must carry social responsibility and align with the principles of sustainable development. Therefore, energy sector companies must prepare disclosure sustainability reports as part of their commitment to sustainable development.

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PT Bukit Asam Tbk (PTBA) understands the importance of one of the companies in the energy sector in the economic and social development of its operations. The company is committed to continuously implementing its role in sustainable development for the progress and advancement of the local community. According to the provisions of Law No. 40 of 2007 concerning Limited Liability Companies, this commitment is commonly known as Corporate Social and Environmental Responsibility (CSER). By embracing social responsibility, the company seeks to balance its interests and those of stakeholders such as consumers, the government, and the community. PTBA not only focuses on profit-making but also considers the social impact that may arise from its operational activities or investments due to its existence as a company.

As a company operating in the energy sector, specifically engaged in coal mining, it is committed to considering the indirect economic impacts on the environment and the local community during its operational activities and when assessing its investments (Fatmawatie & Endri, 2022). This commitment and responsibility direct the company to act as an agent of sustainable development that is harmonious and capable of balancing environmental conditions, cultural values, and societal aspects in the vicinity of the company. Disclosure Sustainability Report from 2017 to 2021, there has been a substantial increase. In the energy sector, 71 companies were listed on the Indonesia Stock Exchange during this period. The graph shows that in 2017 and 2018, only ten companies issued Disclosure Sustainability Reports, accounting for about 14% of the total listed companies. 2019, the number increased to 17 companies; in 2020, it rose to 20 companies publishing the Disclosure Sustainability Report. The most significant increase occurred in 2021, with around 45 companies issuing Disclosure Sustainability Reports, out of which 25 companies were newcomers to reporting sustainability information. This can be attributed to the growing awareness among Indonesian companies about the importance of conducting business sustainably.

In executing sustainability report disclosure practices, companies must adhere to the principles of Corporate Governance (CG), which emphasizes the importance of considering the interests of shareholders and other stakeholders (Aureli et al., 2020). Amidjaya and Widagdo (2020) stated that the company's governance structure and mechanisms play a vital role in supporting the implementation of sustainability report practices and disclosure in Indonesia. Corporate governance is introduced as a method to protect the interests of company owners or shareholders (Sugianto et al., 2020). Fung (2014) stated five main principles of corporate governance: transparency, accountability, responsibility, independence, fairness, and equity. Another influential factor in the presentation of sustainability report disclosures is financial performance, often associated with the profits or gains from the company's business activities (Suharti et al., 2023). Financial performance reflects the company's accomplishments in achieving outcomes from various conducted activities (Ricardianto et al., 2023). Financial performance can be defined as an analysis to evaluate how well the company adheres to financial practices by prevailing regulations (Endri et al., 2020). Financial performance reflects a company's financial situation during a specific period, involving the collection and allocation of funds (Fathony et al., 2020). It is commonly evaluated using profitability, capital adequacy, and liquidity indicators. Financial performance illustrates the results of a company's accomplishments in various conducted activities. Consequently, financial performance can be regarded as an analysis to assess how effectively and accurately the company has implemented financial principles (Fatmawatie & Endri, 2022).

## 2. Literature Review

The application of the principles of the global reporting initiative (GRI) to measure the quality of the Disclosure Sustainability Report (DSR) offers an explanation that is centered on sustainability reporting, namely a practice that aims to measure, disclose, and account for the company's performance in achieving sustainable development goals to stakeholders, both includes internal and external parties. (Landrum & Ohsowski, 2018). Sustainability disclosure is an important issue, although there has yet to be a universal agreement regarding the guidelines (Harymawan et al., 2020). In a sustainability report, companies are expected to articulate the core values embraced by the organization and the governance model adopted. Moreover, companies must delineate their commitments and strategies toward attaining a state or condition enabling them to engage in long-term global economic activities (Jamali, 2017; Riyani et al., 2023). The Disclosure Sustainability Report represents a form of accountability rendered by the principal to the agent and formulating an annual report. Unlike the obligatory annual report, the sustainability report is voluntary. The corporate orientation is no longer centered solely on profit-seeking pursuits but has transformed into the triple-bottom-line, encompassing considerations of people, profit, and the plane (Laczniak & Shultz, 2021).

### 2.1 Profitability and DSR

Profitability indicates a company's capacity to attain profits (Endri, 2019). The higher the level of profitability, the greater the extent of information that managers can communicate. One of the approaches to measuring profitability ratios is assessing the Return on Assets (ROA), which signifies the return on investment (Shahnia et al., 2020). Putri and Pramudiati (2019) found that profitability positively affects the DSR. Wahyudi (2021) revealed the negative effect of the profitability variable on the DSR. Pertiwi and Kusumawati (2022) concluded that profitability does not significantly affect the DSR. Rahim et al. (2024) show the relationship between a company's financial performance using the return on assets (ROA) ratio and economic aspects of DSR.

**H<sub>1</sub>:** *Profitability has an impact on DSR in energy companies.*

## 2.2 Liquidity and DSR

Liquidity ratios are a parameter for a company's ability to fulfill short-term obligations. Liquidity pertains to a company's capacity to meet all its immediate financial obligations (Nurhayati et al., 2022). According to stakeholder theory, companies provide comprehensive information to foster a positive perception of the company among stakeholders (Marsuking, 2020). The study by Naeem and Brata (2021) concluded a positive correlation between liquidity and the DSR. In contrast, Sonia and Khafid (2020) found a negative relationship between liquidity and the DSR. Meanwhile, Putri and Pramudiati (2019) found no significant impact of liquidity on the DSR.

**H<sub>2</sub>:** *Liquidity has an impact on DSR in energy companies.*

## 2.3 Leverage and DSR

Leverage signifies the capability of a company to fulfill its long-term and short-term obligations (Harahap et al., 2020). Utami et al. (2023) assert that the decision to provide social information is accompanied by disclosure costs, which can influence the company's profitability. Putri and Pramudiati (2019) found a positive correlation between leverage and the DSR. Liana (2019) revealed a negative relationship between leverage and the DSR. A study by Naeem and Brata (2021) found that leverage does not significantly impact the DSR.

**H<sub>3</sub>:** *Leverage has an impact on DSR in energy companies.*

## 2.4 Foreign Ownership and DSR

Foreign Ownership is one of the stakeholders in a company and becomes the focus of Corporate Social Responsibility (CSR) disclosure. Companies may demonstrate their concern for the community by engaging in CSR disclosure. If a company has contracts with foreign shareholders, it can gain more support in implementing social responsibility disclosures (Fathony et al., 2020). The stakeholder theory suggests that a high level of foreign Ownership in a company encourages managers to increase CSR disclosure because foreign shareholders are perceived to care about CSR disclosure. This is based on the assumption that foreign countries are more concerned with disclosure, activities, and DSR. Putri and Pramudiati (2019) found that foreign Ownership is positively related to DSR. Genda et al. (2021) suggest that Foreign Ownership hurts DSR. Madonna and Khafid (2020) found that foreign Ownership does not significantly affect DSR. Alodat et al. (2023) also found that foreign Ownership has no significant relationship with DSR.

**H<sub>4</sub>:** *Foreign Ownership has an impact on DSR in energy companies.*

## 2.5 Independent Board of Commissioners and DSR

The Independent Board of Commissioners is crucial in implementing Good Corporate Governance (GCG). As such, its members must disclose information about their responsibilities based on GCG principles, namely accountability. The high frequency of meetings among Independent Board of Commissioners members indicates effective communication and coordination within the board, facilitating the establishment of GCG (Iqbal, 2015). When corporate governance is conducted effectively, as evidenced by an increasing intensity of board meeting communication, the likelihood of the company disclosing its performance becomes more excellent. Madonna and Khafid (2020) proved that an independent board of commissioners positively affects DSR. Wahyudi (2021) shows that an independent board of commissioners only significantly affects DSR.

**H<sub>5</sub>:** *The Independent Board of Commissioners has an impact on DSR in energy companies.*

## 2.6 Firm Size and DSR

The company's size impacts DSR (Hakim et al., 2022). Large companies are more inclined to provide more detailed information than smaller ones. The larger companies incur higher costs to achieve corporate legitimacy as they endeavor to offer more comprehensive information. Corporate legitimacy is essential for companies to align their social and environmental values with societal norms, which allows their activities and performance to be accepted by the public. The company's social and environmental responsibilities are reflected in the sustainability report. Da Monteiro and Aibar-Guzmán (2010) prove that company size positively impacts the level of environmental disclosure. Bhatia and Tuli (2017) found that large companies have significant sustainability disclosures.

**H<sub>6</sub>:** *Company size has an impact on DSR in energy companies.*

## 3. Research Method

The research population is energy sector companies listed on the Indonesia Stock Exchange (IDX) from 2017 to 2021. This research employs a quantitative analysis to test the causality between financial performance and good corporate governance towards DSR. The independent variables consist of Profitability (ROA), Liquidity (CR), Leverage (DER), Foreign Ownership,

Independent Board of Commissioners, and Firm size. In contrast, the dependent or target variable is DSR, proxied using the Global Reporting Initiative (GRI). The definitions of the research variables and measurements are shown in Table 1.

**Table 1**  
Variable Definition and Measurement

Var.	Definition	Measurement
ROA	This ratio reflects the efficiency of a company's asset utilization in generating profits or earnings.	$ROA = \frac{Net\ Profit}{Total\ Assets}$
CR	Company's ability to fulfil their short-term responsibility when due	$CR = \frac{Current\ Asset}{Current\ Debt}$
DER	This leverage ratio can be used to assess debt and equity.	$DER = \frac{Total\ Liabilities}{Total\ Equity}$
KA	Foreign Ownership: The number of company shares owned by entities from foreign countries, including individuals and corporations outside Indonesia.	$\frac{Total\ foreign - owned\ shares}{outstanding\ shares}$
KOMDEN	Independent Board of Commissioners: An independent party with no business or family ties to the controlling shareholders.	$\frac{Number\ of\ independent\ board\ of\ commissioner}{Number\ of\ board\ of\ commissioner\ members}$
SIZE	Total wealth owned by a company (total asset)	$SIZE = Ln\ Total\ Asset$
DSR	The effort to measure and disclose corporate activities while maintaining accountability for organizational performance is a crucial responsibility toward internal and external stakeholders in achieving sustainable development goals	$\frac{Number\ of\ disclosed\ items}{91}$

The panel data regression model was applied to the research to estimate the determinants of DSR. The model analyzed further depends on the pairwise model selection test consisting of; the random effect model (REM), standard effect model (CEM), and fixed-effect model (FEM). Data was processed using EViews version-12 statistical software. The estimated research equation model is:

$$DSR_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 CR_{it} + \beta_3 DER_{it} + \beta_4 KA_{it} + \beta_5 KOMDEN_{it} + \beta_6 SIZE_{it} + \varepsilon_{it};$$

where DSR= Disclosure Sustainability Report, ROA = Return on Assets, CR= Current Ratio, DER= Debt to Asset Ratio, KA= Foreign Ownership, KOMDEN= Independent Board of Commissioners, SIZE = Firm Size.

### 3. Results

#### 3.1 Statistical Description

A description of the statistical data for the research variables is presented in Table 2. Profitability is measured using the Return on Asset (ROA) indicator. ROA is a ratio used to measure the profit generated from the amount of assets a company utilizes by comparing the after-tax net income to the total assets. For energy companies listed on the IDX from 2017 to 2021, the average ROA value is 0.0544 with a standard deviation of 0.0759, indicating that these figures are above the data mean. The minimum ROA value of -0.0984 was recorded for PT Bumi Resources Tbk (BUMI) in 2020. On the other hand, the maximum ROA value of 0.2853 was achieved by PT Indo Tambangraya Megah Tbk (ITMG) in 2021. Table 2 shows that liquidity is measured using the Current Ratio (CR) based on the above descriptive statistical measurements. It is known that the average CR value is 1.9982, with a standard deviation of 1.2259. This means the data used is considered good as the standard deviation is smaller than the average value—the minimum statistical value of 0.2696 for PT Bumi Resources Tbk (BUMI) in 2021 indicates that the company cannot meet its matured short-term obligations. In other words, PT Bumi Resources Tbk may need help fulfilling its short-term financial responsibilities. On the other hand, the maximum value of 7.4195, which belongs to PT Mitrahahtera Segara Sejati Tbk (MBSS) in the year 2021, shows that the company has a solid capability to utilize its current assets to ensure or settle all short-term obligations. In essence, PT Mitrahahtera Segara Sejati Tbk demonstrates a solid capacity to effectively manage its short-term financial commitments. Based on Table 2, the capital structure is measured using the proxy Debt to Equity Ratio (DER). DER is a ratio used to compare a company's total debt to its equity. The average DER value is 2.2678, with a standard deviation of 3.8821, indicating that this figure is still higher than the mean data value. The minimum DER value of 0.0505 is recorded for PT Mitrahahtera Segara Sejati Tbk (MBSS) in 2021. This indicates that PT Mitrahahtera Segara Sejati Tbk has a relatively low level of debt compared to its equity during that period. On the other hand, the maximum DER value of 24.8489 was held by PT Bumi Resources Tbk (BUMI) in 2020. This suggests that PT Bumi Resources Tbk had a significantly higher level of debt relative to its equity in that particular year. Based on Table 2, Foreign Ownership in this context refers to the number of company shares held by foreign individuals or corporations located or operating outside Indonesia. Foreign Ownership has a mean value of 0.2328, with a standard deviation of 0.2325, indicating that this figure is smaller than the average data mean. It should be noted that the minimum value of foreign Ownership is 0.0267, recorded for PT Petrosea Tbk (PTRO) in 2020, while the maximum value is 0.8708 for PT Indo Tambangraya Megah

Tbk (ITMG) in 2017. Independent Board of Commissioners refers to independent individuals with no business or familial affiliations with the controlling shareholders. The average value of the Independent Board of Commissioners is 0.3913, with a standard deviation of 0.0744, indicating that this figure is smaller than the average value. It is important to note that the minimum value of the Independent Board of Commissioners is 0.1667, which was recorded for PT Bukit Asam Tbk (PTBA) in 2020, and the maximum value is 0.5 for PT Elnusa Tbk (ELSA) in 2021.

Based on Table 2, the Firm size is measured to be 30.7367, with a standard deviation of 1.1263. The minor standard deviation compared to the mean value indicates that the data used in this study is consistent. Meanwhile, the minimum value of 28.5608 is recorded for PT Mitrabahera Segara Sejati Tbk (MBSS) in 2021, indicating that the company is relatively small due to its smaller assets than other companies. On the other hand, the maximum statistical value of 32.3757 for PT Perusahaan Gas Negara Tbk (PGAS) in 2018 shows that the company has a large size in its industry due to its significant assets.

**Table 2**  
Statistical Data Description

Variable	Minimum	Maximum	Mean	Std. Deviation
DSR (Y)	0.0549	0.9231	0.3411	0.2155
ROA (X1)	-0.0984	0.2853	0.0544	0.0759
CR (X2)	0.2696	7.4195	1.9982	1.2259
DER (X3)	0.0505	24.8489	2.2678	3.8821
KA (X4)	0.0267	0.8708	0.2328	0.2325
KOMDEN (X5)	0.1667	0.5	0.3913	0.0744
SIZE (X6)	28.5608	32.3757	30.7367	1.1263

Source: Data processed (2023)

### 3.2 Panel Data Regression Model

This research employs three-panel data regression models, namely random, fixed, and expected effects, to estimate and analyze the factors influencing DSR in energy sector companies. After applying the panel data regression models, pairwise testing is conducted for each model to obtain further analysis results.

**Table 3**  
Chow Test based on DPANEL

Effect test	Statistics	Degrees of Freedom	Probability
Cross-section F	3.385523	(9,34)	0.0046
Cross-section Chi-square	31.991745	9	0.0002

Source: Data processed with Eviews 12 (2023)

The decision rule for hypothesis determination is as follows: if the probability value of the cross-section Chi-square is  $< 0.05$ , then  $H_0$  is rejected, and  $H_1$  is accepted. On the other hand, if the probability value of the cross-section Chi-square is  $\geq 0.05$ , then  $H_0$  is accepted, and  $H_1$  is rejected. The Chow Test results in Table 5 show that the probability value is 0.0002. Thus, it can be concluded that the F and Chi-square test probability values are smaller than  $\alpha = 0.05$  (5%). Therefore,  $H_0$  is rejected, and  $H_1$  is accepted, indicating that the FEM is more suitable for estimating in the panel data regression method compared to the CEM.

**Table 4**  
Breusch-Godfrey Serial Correlation LM Test

F-statistic	5.026515	Prob. F(2,41)	0.0112
Obs×R-squared	9.845674	Prob. Chi-Square(2)	0.0073

Source: Data processed (2023)

The Lagrange Multiplier (LM-test) Breusch-Godfrey test determines the model's usage in panel data regression REM and CEM. The hypothesis is set as follows:  $H_0$ : CEM is superior to the REM, and  $H_1$ : REM is superior to the CEM. If the LM test value exceeds the chi-square value and  $\alpha = 0.05$ ,  $H_0$  is rejected, and  $H_1$  is accepted. From Table 4, the result of the LM-test Breusch-Godfrey shows that the Prob Chi-Square value is 0.0073, which is less than  $\alpha = 0.05$ . Therefore, the conclusion is that the REM is superior to the CEM in estimating the determinants of DSR for energy companies.

**Table 5**  
Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.307930	6	0.0554

Source: Data processed (2023)

To determine the model selection between FEM and REM in panel data regression, the Hausman Test can be utilized. The hypothesis is set as follows:  $H_0$  states that the REM is superior to the FEM, while  $H_1$  states that the FEM is superior to the

REM. Based on Table 5 from the Hausman Test, the probability value of the Chi-Square test is 0.0554, which is more significant than  $\alpha = 0.05$  (5%). Therefore, the panel data regression used is the REM.

### 3.3 Panel Data Regression Estimation

The estimation results of the factors influencing the dependent variable "disclosure sustainability report" in energy sector companies, based on the independent variables, using the random effect model, are shown in Table 8, with the following details.

$$\text{DSR} = -0,321206 + C(i) + 1,272788*\text{ROA} - 0,138241*\text{CR} + 0,007430*\text{DER} - 0,215926*\text{KA} - 0,859021*\text{KOMDEN} + 0,214540 \text{ SIZE}$$

**Table 6**  
Estimated Determinants of Disclosure Sustainability Report (DSR)

Variable	Coef.	Std. Error	t-Stat.	Prob.
ROA	1.272788	1.281243	0.993401	0.3261
CR	-0.138241	0.080750	-1.711962	0.0441
DER	0.007430	0.025538	0.290950	0.7725
KA	-0.215926	0.378783	-0.570051	0.5716
KOMDEN	-0.859021	1.178897	-0.728665	0.4702
SIZE	0.214540	0.080665	2.659653	0.0109
C	-0.321206	2.585023	-2.832163	0.0070
R <sup>2</sup>	0.329661		Mean dep. var	-0.881131
Adjusted R <sup>2</sup>	0.236126		S.D. dep. var	0.664719
S.E. of regression	0.580964		Sum squared resid	14.51331
F-stat.	3.524449		D-W stat	1.587823
Prob(F-stat.)	0.006332			

Source: Data processed (2023)

Based on Table 6, the t-test results indicate that the ROA has a positive effect but is not statistically significant on the company's DSR, with a t-statistic probability value of 0.3261, which is greater than  $\alpha = 0.05$ . This means that the null hypothesis (H<sub>0</sub>) is accepted. This finding contradicts the research hypothesis that ROA impacts the company's DSR. The t-test results show that the CR negatively and significantly impacts the company's DSR. The t-statistic probability value (0.0441) is smaller than  $\alpha = 0.05$ , indicating that the null hypothesis (H<sub>0</sub>) is rejected. This empirical finding is consistent with the research hypothesis that the CR hurts the company's DSR. Based on Table 6, the t-test results indicate that the DER has a positive effect but is not statistically significant on the company's DSR. The t-statistical probability value (0.7725) is more significant than  $\alpha = 0.05$ , which means the null hypothesis (H<sub>0</sub>) is accepted. This empirical finding contradicts the research hypothesis, stating that the DER impacts the company's DSR. The t-test results indicate that the variable KA has a negative effect but is not statistically significant on the company's DSR. The t-statistical probability value (0.5716) is more significant than  $\alpha = 0.05$ , which means the null hypothesis (H<sub>0</sub>) is accepted. This empirical finding contradicts the research hypothesis, stating that the KA impacts the company's DSR. Based on Table 6, the t-test results indicate that the variable KOMDEN has a negative effect but is not statistically significant on the company's DSR. The t-statistical probability value (0.4702) is more significant than  $\alpha = 0.05$ , which means the null hypothesis (H<sub>0</sub>) is accepted. This empirical finding contradicts the research hypothesis, stating that the KOMDEN impacts the company's DSR. The t-test results indicate that the variable SIZE positively and significantly impacts the effects statistical probability value (0.0109), which is smaller than  $\alpha = 0.05$ , meaning the null hypothesis (H<sub>0</sub>) is rejected. This empirical finding is consistent with the research hypothesis stating that the SIZE impacts the company's DSR. Based on Table 6, the goodness-of-fit test measured by the coefficient of determination (R<sup>2</sup>) shows a coefficient value of 0.329661, indicating that 32.97% of the variation in the changes in the company's DSR is explained by ROA, CR, DER, KA, KOMDEN, and SIZE. The remaining 67.03% is explained by other variables not examined in this research model. As for the adjusted coefficient of determination (R<sup>2</sup> adjusted), it shows a coefficient value of 0.236126, which means that after considering the degrees of freedom of the REM used, all the independent variables used can explain 23.61% of the changes that occur in the company's DSR.

## 4. Discussion

Empirical evidence shows that the ROA has a positive but insignificant effect on the DSR of energy sector companies listed on the IDX during 2017-2021. The positive sign of the coefficient indicates that as a company's profitability increases, the company is more capable of conducting DSR. The findings from the research do not support the stakeholder theory, where companies with high profits can disclose DSR. Companies will voluntarily disclose DSR if their management needs are already met since the decision to disclose social information may incur additional costs and reduce the company's income. This finding is consistent with Marsuking's (2020) research, which found that profitability does not influence DSR. However,

there are differing research results revealed by Wahyudi (2021), indicating that profitability hurts the DSR. According to the empirical findings, it is evident that liquidity hurts the DSR in energy sector companies listed on the IDX during 2017-2021. By observing the negative sign of the coefficient, it can be concluded that companies with high liquidity tend to refrain from implementing DSR. Such companies prioritize meeting their short-term obligations before engaging in voluntary DSR. The results of this research are consistent with the hypothesis and aligned with Ruhana and Hidayah's (2020) conclusion that liquidity hurts DSR. In another study conducted by Naeem and Brata (2021), it was revealed that liquidity positively affects DSR. Empirical evidence shows that the Leverage (DER) variable has a positive but insignificant effect on the DSR in energy sector companies listed on the IDX during 2017-2021. The positive coefficient sign indicates that as the leverage value increases, companies can gain higher investor confidence to invest in firms with larger asset capitalization than others. The results obtained from the research do not support the stakeholder theory, as it shows that companies with high leverage are incapable of making DSR. Companies tend to carry out voluntary DSR only when their management needs are fulfilled. These findings are because disclosing social information can increase costs and reduce the company's revenue levels. These findings align with the initial hypothesis and are consistent with the research conducted by Sonia and Khafid (2020), which concluded that leverage does not affect the DSR. However, there is a difference in the findings compared to Liana (2019), who indicated that leverage hurts the DSR.

Empirical evidence shows that the Foreign Ownership (KA) variable has a negative and insignificant effect on the DSR in energy sector companies listed on the IDX during 2017-2021. Looking at the results with a negative coefficient, foreign shareholders, such as those from North America and Europe, consider sustainability reporting as a positive and attractive aspect. However, since sustainability reporting in Indonesia is still voluntary, this disclosure cannot be considered a determining factor for these shareholders when making investment decisions. This research results align with the hypothesis and are consistent with the study by Zainal (2017), which concluded that foreign Ownership does not affect DSR. In contrast, the findings of the study by Aksan and Gantjowati (2020) revealed that foreign Ownership has a positive effect on DSR.

Based on empirical evidence shows that the commissioner variable has a negative and insignificant effect on sustainability report disclosure in energy sector companies listed on the IDX from 2017 to 2021. Looking at the negative coefficient, not all members of the independent board of commissioners can demonstrate independence. The results of this study do not support the stakeholders' theory, which states that companies that implement good corporate governance will voluntarily engage in CSR disclosure to meet stakeholders' needs. This research results align with the hypothesis and are consistent with the study by Liana (2019), which concluded that an independent board of commissioners does not affect sustainability report disclosure. In contrast, a different study conducted by Wahyudi (2018) revealed that an independent board of commissioners positively affects sustainability report disclosure.

Empirical evidence shows that the firm size positively and significantly affects DSR in energy sector companies listed on the IDX from 2017 to 2021. Looking at the positive indicates that the larger the firm size, the more capable the company is of conducting DSR. This is because large-sized companies have many assets, enabling them to engage in social activities and voluntarily disclose DSR. This makes investors more confident in investing in companies with significant asset capitalization than in the opposite situation. The results of this research align with the hypothesis and are consistent with the study by Naeem and Brata (2021), which states that firm size has a positive effect on DSR. In contrast, the findings of a different study by Liana (2019) revealed that firm size does not affect DSR.

## 5. Conclusions

This study investigates the impact of profitability, liquidity, leverage, foreign Ownership, independent board of commissioners, and firm size on the DSR in energy sector companies listed on the Indonesia Stock Exchange (BEI) from 2017 - 2021. The research findings reveal that profitability (ROA) shows a positive but insignificant effect on companies' DSR. Conversely, liquidity (CR) exhibits a significant adverse effect on DSR. Leverage (DER) demonstrates a positive but insignificant impact, while foreign ownership (KA) and independent board of commissioners (KOMDEN) both have adverse but insignificant effects on DSR. On the other hand, firm size (SIZE) significantly positively affects companies' DSR. A recommended research suggestion for future studies is to use a more representative and larger sample. Additionally, for further research, it is advised to consult with more experienced experts to address any subjectivity in determining disclosure indices. This is crucial because different researchers may have varying interpretations when categorizing indicators within the same category. Therefore, implementing this step will enhance the accuracy and validity of the research findings. Based on the discussion and conclusions, the author provides recommendations for companies in the energy sector before making decisions regarding suitable sustainability report disclosure to achieve optimal reporting. The company should first consider its factors, such as liquidity and firm size, in determining its future progress. These factors will significantly affect the company's economic, environmental, and social progress. Future researchers are encouraged to expand the research sample beyond the energy sector, including industries, the financial sector, and other sectors listed on the stock exchange.

Moreover, since the research period was limited to only five years, it is recommended that future research extend the observation period beyond five years. The coefficient of determination (R-squared) of 32.97% indicates that 67.03% of other variables not examined in the study may influence sustainability report disclosure in the energy sector. Therefore, exploring a broader range of independent variables in the following research is advised. The study could encompass aspects such as

institutional Ownership, managerial Ownership, company value, and company activities in its analysis. By involving these variables, the research will become more comprehensive and deepen the understanding of the factors influencing sustainability report disclosure.

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