Accounting Analysis Journal 10(2) (2021) 143-149

AAJ ACCOUNTING ANALYSIS JOURNAL

Accounting Analysis Journal

https://journal.unnes.ac.id/sju/index.php/aaj

Institutional Ownership and Disclosure of Sustainability Report with Environmental Uncertainty as Moderation Variables

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ARTICLE INFO

Article History:
Received March 14th, 2021
Accepted October 28th, 2021
Available November 15th, 2021

Keywords:
Good Corporate Governance; Institutional Ownership; Environmental Uncertainty Sustainability Reporting

ABSTRACT

This study analyzes institutional ownership's direct effect as a corporate governance mechanism on sustainability reporting. The contribution of this research is to consider the environmental uncertainty factor in studying the effect of institutional ownership on sustainability reporting and the use of panel data regression with the balanced panel. The population of this study is all companies outside the financial sector that publish sustainability reporting from 2016-2019. The sampling technique used is purposive sampling to obtain the required data. This study's sample is a non-financial company listed on the Indonesia Stock Exchange (IDX) and publishes successive sustainability reports from 2017 to 2019. Hypothesis testing uses panel data regression (Balanced Panel) with a random effect model, using STATA 14.2 statistical software. In a direct relationship, the study results provide empirical evidence that institutional ownership has a positive effect on sustainability reporting. The higher the percentage of share ownership by the institution, the better the sustainability reporting. Meanwhile, environmental uncertainty does not moderate institutional ownership of sustainability reporting when considering external factors as moderating variables.

INTRODUCTION

The study of sustainability has become an important topic, especially during the Covid-19 pandemic, where the world community is increasingly aware of protecting the environment, maintaining social solidarity, and economic growth. Environmental issues that are getting more and more damaged day by day and the reduced contribution of companies in social issues are widely discussed. This situation is shown by climate change, global warming, which results in decreased environmental quality, human rights violations, and discrimination (Karaman, et al., 2018). One of the contributing factors is business activities that exploit the environment and surrounding communities to maximize profits. The Financial Services Authority (OJK) issued regulation Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies. The regulation requires emitens to prepare a sustainability report. The existence of an obligation to prepare a sustainability report shows the importance of studies concerning the factors that affect the quality of sustainability reporting.

There is an awareness that companies in running their business must care about the welfare of society, the environment, business ethics, and ensure business sustainability (Montecalvo et al., 2018). It is not enough, and stakeholders require companies to inform the impact of business on social and environmental life in sustainability reporting (Boiral, 2013). This report aims to meet stakeholders' information needs regarding the company's concern for social and environmental issues in running its business (Montecalvo et al., 2018). This reporting also indicates the company's responsibility for social, economic, and environmental aspects in running its business (Kusuma & Priantinah, 2018; Tyas & Khafid, 2020).

When conducting this research, there is no obligation in Indonesia to prepare sustainability reports. To compile this report, companies should implement sustainability practices that in essence, consider the impact of their business on the environment, society, and economy. This practice requires a strong commitment from management. Disclosure regarding the impact of business on the environment, community, and economy is explicitly reported in the sustainability report by following specific standards. Therefore, a supervisory mechanism is needed to transparently and responsibly disclose their environmental, social, and economic activities. Aziz (2014) states that implementing and disclo-

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DOI 10.15294/aaj.v10i2.45731 p-ISSN 2252-6765 e-ISSN 2502-6216

sing sustainability reporting is a logical consequence of the corporate governance mechanism, it is because the quality of the supervisory mechanism on policies, processes, and business practices carried out by management plays an important role in disclosing the quality of sustainability reporting (Ong & Djajadikerta, 2018).

The external environment has been considered a factor that influences corporate governance's effectiveness as a supervisory mechanism for management in maintaining the prosperity of shareholders (Tang & Chen, 2020). The level of competition, the corruption index, law enforcement, and environmental uncertainty are external factors that can affect the supervisory mechanism (Williams & Seaman, 2014; Tang & Chen, 2020). External factors that create uncertainty for companies to stay in business determine the successful implementation of company policies (Tang & Chen, 2020). The effectiveness of corporate governance to improve the quality of sustainability reporting is influenced by external factors such as environmental uncertainty.

Many studies have studied corporate governance's influence on sustainability reporting (Ganesan et al., 2017; Ong & Djajadikerta, 2018). However, few studies consider environmental uncertainty factors in studying the influence of this topic. Company policies are strongly influenced by the environment in which the company operates, or, in other words, company policies are adjusted to the environment. Thus, complementing the previous studies on the influence of corporate governance on sustainability reporting, this study aims to study environmental uncertainty factors in studying corporate governance and sustainability reporting.

Institutional ownership generally has great power because it holds many shares (Masud et al., 2018). Other studies reveal that institutional ownership pays excellent attention to voluntary disclosure (Haladu & Salim, 2016). Based on these arguments, the research wants to learn more about institutional ownership in the relationship between sustainability reporting and performance. In the perspective of agency theory, institutional ownership mitigates information asymmetry to encourage disclosure of business's impact on economic, environmental, and social.

Based on the literature review, few studies study the effect of institutional ownership on sustainability reporting by considering environmental uncertainty as a moderating variable. This study aims to analyze corporate governance's effect on sustainability reporting in companies listed on the Indonesian stock exchange that publish sustainability reporting. Furthermore, the study considers environmental uncertainty as a moderating variable. The disclosure of sustainability reporting is measured using the Global Reporting Initiative (GRI) standard because it is mostly used as a reference by companies globally (Martínez-Ferrero et al., 2015), including in Indonesia. Global Reporting Initiative (GRI) is one of the institutions that provide standards for preparing sustainability reporting. The report is of higher quality and can better convey non-financial information.

The GRI standard can be used by all companies, including small, medium, and large companies (GRI, 2021). GRI provides a trusted standard for sustainability report disclosure that enables companies and stakeholders to make better decisions based on important financial and non-financial information. The GRI standards consist of economic, environmental, and social topics. GRI specific standards for economic (GRI 200), environmental (GRI 300), and social (GRI 400). The economic aspect contains economic indicators related to the impact that the company produces on stakeholders' economic conditions and the economic system at the local, national and global levels. Environmental aspects contain indicators relating to the impact caused by the company regarding environmental conditions on living things and the surrounding environment, including ecosystem, land, air, and water. The social aspect contains social indicators related to the company's social activities and the relationship between the company and the social environment around the company's operational area. Empirical research evidence provides regulators that in setting policies regarding sustainability reporting, it is necessary to consider corporate governance factors, especially share ownership. Another implication is for academics in studying the quality of sustainability reporting, and it is necessary to consider aspects of the external environment such as environmental uncertainty.

One of the corporate governance mechanisms that are often studied is institutional ownership because the proportion of ownership is quite large so that it has significant voting rights (Neubaum & Zahra, 2006; Masud et al., 2018). In deciding to invest funds in shares in another company, institutional investors will conduct in-depth research on potential investees to avoid the risk of errors in making investment decisions. Investment decisions take into account financial and non-financial issues in making decisions to buy investee shares. Non-financial aspects include how the investee ensures business continuity by wisely managing issues related to factors that indirectly affect its condition. This includes how the company manages environmental and social issues impacted by its business (Ching et al., 2017; Koellner, 2005).

The implementation of the sustainability policy indirectly affects the company's financial condition, such as using electricity and water resources and ensuring the welfare of employees. This concern impacts the efficient use of these resources and increases productivity so that operational costs can remain efficient. Also, the expected expectation is that the investment value will increase because the investee avoids the risks arising from bearing political costs that arise because they are considered to be damaging to the environment, ignore the social environment, and the possibility of going concern threats (Masud et al., 2018).

Non-financial information is obtained from the disclosure of environmental and social concern activities disclosed in sustainability reporting. The explanation above shows that institutions as investors have an interest in disclosing sustainability activities. Institutional ownership can influence management to transparently and comprehensively implement and disclose policies related to economic, environmental and social concerns. The disclosure of information must be complete and comprehensive. To match users' wishes, the preparation of sustainability reporting must be per the standards widely used by companies throughout the world, the disclosure standards issued by GRI.

In the context of agency theory, the supervisory mechanism in the form of share ownership mitigates the opportunistic behavior of management at the expense of shareholder interests. Institutional ownership will motivate management to implement and report policies on the environment and society comprehensively and responsibly (Mnif et al., 2019). Previous research provides empirical evidence that institutional ownership positively affects sustainability reporting (Masud et al., 2018; Mnif et al., 2019). The higher the institutional ownership, the better the sustainability report. Based on a review of the literature and arguments, the hypotheses to be tested in this study are:

H_1: Institutional ownership has a positive effect on sustainability reporting

According to institutional theory, five aspects influence management in managing environmental issues. These aspects include regulations relating to environmental protection in a country, customer pressure, environmental uncertainty, expectations of business profits, and social responsibility (Ali et al., 2019). In this context, environmental uncertainty becomes the focus of this research. Environmental uncertainty can be classified into complexity and a dynamic environment or an unstable environment (Cormier et al., 2013). Complexity is characterized by heterogeneous and broad environmental changes that affect company operations (Child, 1972). An unstable environment is caused by changes in various elements outside the company, which include the company's customer desires, changes in technology, and competition structures (Cormier et al., 2013; Latan et al., 2018). Changes in customer desires are marked by changes in the number of product sales the company produces.

There is not much literature on the effects of environmental uncertainty on the relationship between corporate governance and sustainability reporting. Environmental uncertainty affects management policies in determining strategic decisions (Cormier et al., 2013). In the perspective of agency theory, the monitoring mechanism will reduce its effectiveness when conditions of environmental uncertainty are high (Byun et al., 2012). Tang & Chen (2020) state that market competition conditions are an important factor in influencing good corporate governance, which can also affect the quality of sustainability report disclosures. Management discretion in decision-making increases when environmental uncertainty is high (Arieftiara et al., 2017). Management that focuses on winning the competition will tend to ignore activities that increase costs, including disclosing sustainability activities.

In the context of a direct relationship, (Rashidi et al., 2020) provide empirical evidence that environmental uncertainty has a negative effect on environmental sustainability behavior. These results indicate that environmental uncertainty causes information asymmetry, reducing ineffective monitoring mechanisms (Hoque, 2004). In a high uncertainty environment, management will focus on how to manage the business to avoid losses. Other aspects such as environmental management and attention to social problems are no longer a priority. There is a need for a supervisory mechanism from the shareholders to ensure that management pays attention to environmental management, social and economic concerns for the long term interest. Weak oversight functions may result in management not preparing responsible and transparent sustainability reporting. Based on a review of the literature and arguments, the hypotheses to be tested are:

H_2: Environmental uncertainty moderates the relationship between Institutional ownership and sustainability reporting

RESEARCH METHODS

Table 1 shows the sample selection criteria used in this study. This study uses secondary data obtained through the IDX website and company website. The sample selection was carried out using purposive sampling to obtain all the required data. The sample selection criteria are all non-financial companies listed on the IDX from 2017 to 2019 and publish consecutive sustainability reporting from 2017-2019. Examination of outliers is carried out using the criteria for the average value of the variable plus-minus two standard deviations. Because it uses a balanced panel, so if there are outliers in an observation period, the entire year of observation at the company will be excluded from further processing. Based on these criteria, 30 companies (total observation of 90 companies-years) meet the established criteria and can be further processed. The model used to test the hypotheses proposed in this study is shown by formula 1.

The independent variable is the SRDI (Sustainability Report Disclosure Index). The dependent variable is INSTOWN (institutional ownership), and the moderating variable UNCERTAINTY (environmental uncertainty). The control variables are LOSS (companies that report losses in the current year), leverage (the level of

Table 1. Research Sample

No	Description	Total
1	Companies listed on the IDX 2017 to 2019	496
2	Companies in the financial sector	(82)
3	Companies that do not publish complete sustainability reports from 2017 to 2019	(326)
4	Companies whose annual reports cannot be obtained in full from 2017 to 2019	(57)
5	Outlier	(1)
Companies Sample		30
Companies-years (2017to 2019)		90

$$SRDI_{it} = \alpha_{it} + \beta_1 Instown_{it} + \beta_{2it} Uncertainty_{it} + \beta_{3it} Instown_{it} * Uncertainty_{it} + \beta_4 Loss_{it} + \beta_5 Leverage_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \varepsilon_{it} \quad (1)$$

company debt compared to total assets), SIZE (company size), and Age (company age).

The dependent variable in this study is sustainability reporting which is measured using the GRI standard 2016, which consists of GRI-specific standards, economic (GRI 200), environmental (GRI 300), and social (GRI 400). GRI 200 consists of thirteen disclosure items. GRI 300 consists of thirty disclosure items. GRI 400 consists of 34 disclosure items. Thus, the total items for the sustainability report assessment based on GRI 101: Foundation 2016 are 77 items of assessment. Following Octiana et al. (2020), the dependent variable sustainability reporting disclosure (SRDI) is measured by the formula SRDIit is total items disclosed divided by total items according to GRI standards. Scoring is done by giving a value of 1 if the company's disclosure is under GRI standard items and 0 if it does not disclose standard items. The total scores obtained by the company are then added up. The maximum score is 77. The higher the SRDI value, it can be said that the better the sustainability reporting.

Institutional ownership is the ownership of company shares by other entities, both domestic and foreign, and ownership by the government (Chabachib et al., 2020). Following Chabachib et al. (2020), this study measures institutional ownership by comparing the number of company shares owned by other institutions with the number of shares outstanding (number of shares owned by other institutions/number of shares outstanding). The environmental uncertainty variable is measured using the following formula, sales growth is (sales - sales-1) / sales-1.

Companies with high leverage levels tend to report better social responsibility information because many creditors ask companies to disclose complete information about company activities (Al-Shubiri et al., 2012).The leverage control variable is calculated by dividing total debt by total assets (Bimo et al., 2019b). The company's age is measured as the difference between the years of observation and the year the company was first listed on the stock exchange. Company size is measured using the natural logarithm of total assets and loss using a dummy variable, given a score of 1 if the company reported a loss in the year of observation and 0 if vice versa.

RESULTS AND DISCUSSION

The data analysis in this study used the panel data method and was processed using the STATA 14.2 software application. The panel data model used is the balanced panel data to obtain an overview of the comparison of sustainability reporting quality from year to year in each company each year. Table 2 shows the descriptive statistics of the variables used in this study. The average observation score has an SRDI score of 31.97 with a minimum value of 6.49 and a maximum value of 76.62. In other words, of the 77 standards applied by GRI, the average observed company disclosed about 25 standards. These results indicate that companies in Indonesia have not implemented the principles of sustainability properly. The low SRDI scoring average could be caused by the sustainability reporting report's compilation, which is still voluntary.

The average of institutional ownership is 48.75%. Share ownership by institutions in the sample companies is quite large and significantly affects the investee company. Institutional ownership has considerable voting rights in determining company policy. The environmental uncertainty faced by the sample companies is not that high, as indicated by an average of 17.61%. The change in customers' preferences during the observation period is not too large because the changes in the company's sales in the current year compared to the previous year experienced changes that were not too significant.

The average ratio of total liabilities to total assets is quite large (52.96%) with wide variations, meaning that most of the sample companies' assets are financed

Table 2. Descriptive Statistics

Panel A :					
VARIABLE	**N**	**MEAN**	**SD**	**MIN**	**MAX**
SRDI	90	31.967	14.48698	6.494	76.623
INSTOWN	90	48.754	28.60616	0	81.7
UNCERTAINTY	90	17.612	29.75466	-35.667	188.225
LEV	90	52.957	19.87571	12.642	84.432
SIZE	90	31.015	1.025367	28.717	33.495
AGE	90	2.640	0.653	1.099	3.611
Panel B : Proportion					
LOSS		0		88%	
		1		11%	

Note : SRDI = Sustainability Reporting Indeks; INSTOWN = Institutional Ownership; UNCERTAINTY = Environmental uncertainty; LEV = Leverage; SIZE = natural logarithm of total assets; AGE = natural logarithm of the number of years the company is a public listed company.

Table 3. Skewness-Kurtosis Normality Test

Variable	Obs	Pr (Skewness)	Pr (Kurtosis)	Adj chi² (2)	Prob>chi²
res	90	0.8848	0.8164	0.07	0.9632

from debt. The average sample firms are large (mean total assets 49 trillion, antilog 31,015). The average company is said to be mature because, on average, it has traded its shares on the stock exchange for 16.93 years. This shows that sustainability reporting in Indonesia is prepared by big companies and has long been a public listed company. Large and mature companies have adequate resources and understand the information needs of investors to make investment decisions.

Based on the Hausman, Chow, and Lagrange Multipliers testing, this research model is suitable to be tested using the random effect model. Testing for normality using skewness kurtosis analysis, the analysis results show that the value of Prob> chi is greater than 0.05, which is equal to 0.9632. The result indicates that the residual data is normally distributed (Table 3).

The autocorrelation test shows that there is no autocorrelation. The heteroscedasticity test used in this study is the Generalized Least Square (GLS) test. Based on the Generalized Least Square test results, panel data is homoscedastic, so that heteroscedasticity does not occur. The results of the multicollinearity test are shown in Table 4. VIF values of all variables are below 10, so it can be said that there is no multicollinearity. Table 4 shows the results of testing hypotheses 1 and 2. Table 4 shows the results of testing hypotheses 1 and 2. The variables of concern are INSTOWN for H_1 and INSTOWN* UNCERTAINTY for H_2.

Institutional Ownership and Sustainability Reporting

Empirical evidence shows that institutional ownership has a positive effect (5% significance) on the reportability's reliability. This means that the greater the percentage of institutional ownership, the better the sustainability report. These results are consistent with previous studies by Masud et al. (2018); Mnif et al. (2019). Hypothesis 1, which states that institutional ownership positively affects the sustainability report, is acceptable.

Table 4. Hypothesis Testing

VARIABLE	SRDI		
	Coeficient	P- value	VIF
CONSTANT	-18.420	0.742	
INSTOWN	0.143	0.028	3.07
UNCERTAINTY	-0.067	0.613	7.45
INSTOWN * UNCERTAINTY	-0.000	0.972	7.22
LOSS	-1.153	0.805	1.21
LEV	0.131	0.314	3.06
SIZE	1.197	0.507	1.24
AGE	0.294	0.928	1.15
N	90		
R2	0.0870		
F-STAT	0.0132		

Note : SRDI = Sustainability Reporting Indeks; INSTOWN = Institutional Ownership; UNCERTAINTY = Environmental uncertainty; LEV = Leverage; SIZE = natural logarithm of total assets; AGE = natural logarithm of the number of years the company is a public listed company.

In the context of agency theory, these results indicate that share ownership by the institution will mitigate agency problems. Owners need financial and non-financial information to ensure that the company is long-term oriented because it pays attention to economic, environmental, and social issues. This oversight mechanism motivates management to transparently and comprehensively report policies and implementation related to economic, environmental, and social topics.

In addition to considering financial and non-financial factors, the institution as a shareholder makes investment decisions. Shareholders realize that sustainability practices indirectly have an impact on the company's financial condition. As an investor, institutions can measure the level of risk arising from compliance with environmental management, companies' involvement in addressing social problems, and the sustainability of their business. Owner oversight mechanisms ensure that management implements and disclose policies relating to environmental, social, and economic concerns transparently and comprehensively.

Environmental Uncertainty as Moderating Variable

On a moderating effect, environmental uncertainty does not moderate the effect of institutional ownership on sustainability reporting. The second hypothesis, environmental uncertainty, moderates the relationship between institutional ownership and disclosure of the sustainability report and cannot be accepted. These results indicate that institutional ownership is a powerful mechanism to encourage voluntary disclosure (Masud et al., 2018; Haladu & Salim, 2016) so that external conditions do not affect company policies to improve the quality of sustainability reporting. Another explanation is that the observed companies' level of environmental uncertainty is not too high (Table 1). The sample firms are relatively in a situation where the external environment is stable and not complex.

In the context of research on the effect of supervisory mechanisms in mitigating agency problems, the results of this study are in line with the explanation that an excellent supervisory mechanism is not influenced by external environmental conditions (Bimo et al., 2019a). The positive influence on the direct relationship in Hypothesis 1 shows that shareholders ensure that those who manage environmental, social, and economic issues are in the long-term interest in both situations where uncertainty is high or low. Shareholders remain focused on long-term considerations from both financial and non-financial aspects.

CONCLUSIONS

Empirical evidence shows that institutional ownership has a positive effect on the sustainability report. Companies with high institutional ownership have an incentive to produce quality sustainability reports. Environmental uncertainty does not moderate the effect of institutional ownership on sustainability reporting. The sample companies are in a relatively stable environment, so that it does not have a significant effect on the effectiveness of shareholder supervision on sustainability reporting.

This research has several limitations. First, in assessing the quality of sustainability reporting, there is the possibility that it is not objective because it has to justify it. Future studies may consider peer review to obtain more objective results. The second is that this study cannot be generalized to all public companies in Indonesia because it does not consider financial companies. Subsequent research can use financial companies to obtain a complete picture of sustainability reports' quality of sustainability reports. This study shows that the effectiveness of the supervisory mechanism carried out by shareholders can improve the sustainability report's quality.

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