Environmental disclosure and its determinants

by Indah Fajarini

PAPER • OPEN ACCESS

Environmental disclosure and its determinants

To cite this article: I F S Wahyuningrum *et al* 2022 *IOP Conf. Ser.: Earth Environ. Sci.* **1098** 012060

Environmental disclosure and its determinants

I F S Wahyuningrum[1*], M I Amal [1], S Oktavilia[2], A Setyadharma[2], M Khafid[1], M Lina[1]

[1]Department of Accounting, Faculty of Economics, Universitas Negeri Semarang
[2]Department of Economics, Faculty of Economics, Universitas Negeri Semarang

*i.fajarini@mail.unnes.ac.id

Abstract. Nowadays, companies are required to report not only about their economic performance but also about the social and environmental aspects of their operations. This is because social and environmental disclosures are seen as increasingly significant in terms of their influence on the survival of the company. The purpose of this study is to see how firm size, profitability, leverage, and managerial ownership affect environmental disclosure. The population of this study comprises non-financial sector companies listed on the Indonesia Stock Exchange (IDX) between 2017 and 2020. Purposive sampling was used, yielding 160 units to be analysed. A documentation technique was used to collect the research data that were used. The data came from the IDX website as well as from the official websites of each company. Descriptive statistical analysis and regression testing using SPSS were used. The results show that profitability and leverage have a negative effect on environmental disclosure. A suggestion stemming from this research is that companies should increase their environmental disclosure in order to ensure the transparency and accountability of their information in the eyes of the public. Future research is expected to be able to use all financial ratios to assess the impact of financial performance on company environmental disclosures.

1. Introduction

Climate change has emerged as one of the most pressing problems facing the world since the late twentieth century. Global warming refers to conditions in which there is climate change that is directly or indirectly related to human activities, and where these activities are able to change the composition of the atmosphere over a predetermined period of observation [1]. Another issue that is related is sustainability of the environment and natural resources. These problems will have an impact on how companies carry out their operating activities. At the same time, the public is becoming increasingly aware of how operational activities of companies can pollute the surrounding environment.

This growing public awareness has had an impact in terms of increased pressure being placed on companies to take responsibility for the environment. Other stakeholders, including governments, international organizations and other similar organizations, have been applying strong pressure to companies to pay attention to their environmental performance through the issuing of regulations and rules. As a consequence of pressure from stakeholders, companies must be accountable to the community for the impacts resulting from their operating activities.

Through Law No.32 of 2009 concerning Environmental Protection and Management, Law No.40 of 2007 concerning Limited Liability Companies (Article 66 paragraph 2C and Article 74 paragraph 1), Government Regulation No.47 of 2012 concerning Social Responsibility for the Environment of Limited Liability Companies and the Indonesian Capital Market, and the Financial Institutions Supervisory Agency, the government requires companies to be responsible for the environment [2].

Qiu et al. [3] state that companies with large profits have the ability to finance expenditures related to environmental disclosure. A company's large resources will provide an opportunity for it to demonstrate its commitment to the environment. Doing this has the aim of reducing the pressure that comes from the community and it can create a good impression in the eyes of stakeholders. Previous research has found that profitability has a positive influence on environmental disclosure [4,5,6].

Leverage is a ratio that can reflect a company's capacity to meet its obligations. Choi et al. [7] state that a company with high leverage will choose to focus on paying all debts rather than making voluntary disclosures. On the other hand, management has the responsibility to prepare the annual report addressed to the company's owner and its stakeholders. Therefore, management is expected to disclose all relevant information in the annual report for the basis of efficient decision making. A high level of managerial ownership will influence managers to pay more attention to their performance. The result of that study found managerial ownership had positive influence on environmental disclosure [8].

Company size is one of the observable characteristics of a company. People will pay more attention to large companies. As a result, large companies will get pressure from society that will grow increasingly stronger. In addition, large companies have the resources available to finance all corporate expenses related to environmental disclosure. Some past research found that firm size positively affects environmental disclosure [9,10,11].

The following hypotheses are formulated based on the evidence presented above:
H1 = Environmental disclosure is significantly positively influenced by profitability.
H2 = Environmental disclosure is significantly negatively affected by leverage.
H3 = Environmental disclosure is significantly positively influenced by managerial ownership.
H4 = Environmental disclosure is significantly positively influenced by firm size.

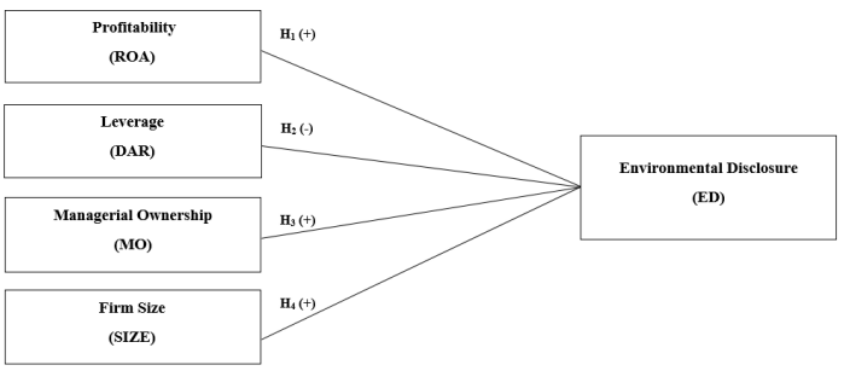

Figure 1. Theoretical framework.

2. Methodology

The population for this study comprises non-financial sector companies in Indonesia. These companies must be listed on the Indonesia Stock Exchange (IDX) and provide information related to the environment in their annual reports and on their official websites for the period 2017 to 2020. Purposive sampling was used in this study. The research sample consisted of 160 units of analysis. SPSS v24 was used to perform multiple linear regression analysis. The multiple linear regression equation is shown in equation (1).

$$CED = \alpha + \beta 1\ ROA - \beta 2\ DAR + \beta 3\ MO + \beta 4\ SIZE + e \quad (1)$$

Table 1. Measurement variables.

Variables	Codes	Measurements
Environmental Disclosure	ED	Analyze the content
Profitabilitas	ROA	Net income/total assets
Leverage	DAR	Liabilities/ total assets
Managerial Ownership	MO	Number of shares owned by management/ number of shares outstanding
Firm Size	SIZE	Log of total assets

3. Results and Discussion

3.1. Descriptive and regression result

Descriptive statistical analysis yielded a mean of 0.318 and a standard deviation of 0.235. The mean value, being greater than the standard deviation, implies that the data are normally distributed. However, the minimum value of environmental disclosure is 0 which means that there are several companies that do not disclose environmental information.

Table 2. Results of descriptive statistics.

Variables	N	Minimum	Maximum	Mean	Std. Dev
ROA	160	-0.451	0.526	0.052	0.102
DAR	160	0.126	0.961	0.519	0.212
MO	160	0	0.029	0.002	0.005
SIZE	160	19.547	26.587	23.870	1.169
ED	160	0	0.933	0.318	0.235

The significance level of the normality test using the Kolmogorov Smirnov One-Sample is 0.281 > 0.05, indicating that the data are normally distributed. The tolerance value is greater than 0.10 and the VIF value is greater than 10, which indicates that the regression model does not have symptoms of multicollinearity. Heteroscedasticity was tested using the Glejser Test. Each variable has a significance value greater than 0.05, which indicates that the data are free from heteroscedasticity. The Cochrane Orcutt approach was used in the autocorrelation test. The DW value is 1.907 where dU < DW < 4-dU (1.7925 < 1.907 < 2.2075), which indicates that there is no autocorrelation in the data. A simultaneous test using ANOVA and produces sig value. of 0.046. This means that ROA, DAR, MO, and SIZE have a simultaneous effect on the ED variable.

Table 3. Results of a statistical test.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	β	Std. Error	Beta		
(Constant)	.214	.392		.546	.586
ROA	-.397	.184	-.173	-2.164	.032
DAR	-.184	.089	-.166	-2.081	.039
KM	-2.954	3.675	-.065	-.804	.423
SIZE	.010	.016	.047	.582	.561

3.2. Hypothesis Discussion

3.2.1 The effect of profitability on the environmental disclosure. Profitability has a significance level of 0.032 with coefficients indicating the negative direction of the dependent variable, which, in turn, indicates that environmental disclosure is negatively and significantly affected by the profitability variable. The difference in direction between hypothesis and results means the **H1 is rejected**. Companies believe that environmental disclosure is a burden that can reduce the nominal income that they earn. Meanwhile, the low value of the company's profitability indicates that its financial performance is poor. Thus, the company will make decisions to disclose environmental information in order to gain legitimacy in the eyes of stakeholders. This is supported by research conducted by Wahyuningrum et al. and Udo [12,13].

3.2.2. The effect of leverage on the environmental disclosure. Leverage has a significance value of 0.039, which indicates that the second **hypothesis (H2),** which explains the negative effect of leverage on the disclosure of carbon emissions, **is accepted**. Companies with high leverage need to be more conservative when creating some of their policies, especially regarding company spending; one of these is by not making environmental disclosure. The company choses not to disclose its environmental performance due to the lack of financial resources, although, on the other hand, the company feels pressure from various parties. Additionally, the company is under pressure to pay off debts to creditors immediately. The company will choose to reduce the intensity of environmental disclosure aimed at not to attracting the attention of debtholders. This study supports previous research [14,15], which has found results that environmental disclosure negatively affecte the leverage variable.

3.2.3. The effect of managerial ownership on the environmental disclosure. The testing of the third hypothesis (H3), indicating a significance value of 0.423, demonstrates that managerial ownership is not able to have an effect on environmental disclosure which means that H3 is rejected. Managerial ownership of non-financial companies in Indonesia is not able to influence company policy regarding conducting environmental disclosure. This is because the number of managerial ownerships in Indonesia is relatively small so there is no comformity between the interests of managerial and corporate owners. According to previous research, managerial ownership cannot affect environmental disclosure [16,17].

3.2.4. The effect of firm size on the environmental disclosure. The findings show that company size has no effect on environmental disclosure. SIZE indicates significance value of 0.561 which is > 0.05 and so proves that the **H4 is rejected**. Companies that have a lot of assets do not necessarily make extensive environmental disclosure; this is because many companies in Indonesia still do not understand the importance of contributing to the protection of the environment. The impact of large companies on the environment is greater than that of small companies, therefore the government needs to impose stricter regulations related to the obligations of large companies to carry out environmental disclosure. This is supported by other studies [18,19].

4. Conclusions

This study has examined the factors that influence environmental disclosure in non-financial sector companies listed on the Indonesia Stock Exchange between 2017 and 2020. The results show that only one of the four hypotheses has been proven. Based on the test results, it is found that profitability and leverage have a negative effect on environmental disclosure, while managerial ownership and firm size have no effect. The study's conclusions may be valuable to companies, investors, and regulators in developing rules to make environmental disclosure decisions. A suggestion stemming from this research is that companies should increase environmental disclosure in order to ensure the transparency and accountability of their information in the eyes of the public. Future research is expected to be able to use all financial ratios to measure the influence of financial performance on company environmental disclosures.

References

[1] Declarations of the United Nations Conferences on the Human Env 1992 Retrieved from www.unep.org/documents.multilingual/default.asp?documentid=97&articleid=1503
[2] Deswanto R B and Siregar S V 2018 *Soc.l Resp. J.* **14**(1) 180-193
[3] Qiu Y, Shaukat A, and Tharyan R 2014 *The British Acc. Rev.* 1-15
[4] Kansal M, Joshi M, and Batra G S 2014 *Adv. Account.* **30**(1) 217-229
[5] Lu Y and Abeysekera I 2014 *J. Clean. Prod.* **64**(1) 426-436
[6] Muttakin M B and Khan A 2014 *Adv. Account.* **30**(1) 168-175
[7] Choi B B, Lee D, Psaros J 2013 *Pac. Account. Rev.* **25**(1) 58-79
[8] Sari G A C N, Yuniarta G A, and Wahyuni M A 2018 *J. Ilmiah Akuntansi* **9**(3) 145-155
[9] Welbeck E E, Owusu G M Y, Bekoe R A, and Kusi J A 2017 *Int. J. Corp. Soc. Resp.* **2**(1) 11
[10] Khalid T B, Kouhy R, and Hassan A 2017 *J. of Acc. and Auditing: Res. Pract.* 369352
[11] Ismail A H, Rahman A A, and Hezabr A A 2018 *Int. J. Ethnics Syst.* **34**(4) 527-563
[12] Wahyuningrum et al 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **623** 012065
[13] Udo E J 2019 *Int. J. Account. Finance* **8**(1) 1-20
[14] Cormier D and Magnan M 2003 *J. Account. Public Policy* **22** 43-62
[15] Paramitha B W and Rohman A 2014 *Diponegoro J. Account.* **3**(3) 1-11
[16] Junita N L and Yulianto A 2018 *Account. Analysis J.* **7**(3) 144-150
[17] Nilam P and Wahyuningrum I F S 2021 *Jurnal Akuntansi Bisnis* **14**(1) 58-72
[18] Elshabasy Y N 2018 *J.Bus.Retail Manag. Res.* **12**(2)
[19] Gatimbu K K and Wabwire J M 2016 *Int. J. Sustain. Manag Inform. Tech.* **2**(1) 1-6

Environmental disclosure and its determinants

ORIGINALITY REPORT

13%	11%	6%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	journalppw.com Internet Source	2%
2	Nejla Ould Daoud Ellili. "Bibliometric analysis and systematic review of environmental, social, and governance disclosure papers: current topics and recommendations for future research", Environmental Research Communications, 2022 Publication	2%
3	ejournals.umn.ac.id Internet Source	1%
4	etheses.dur.ac.uk Internet Source	1%
5	Kurniawan Siregar, Afriapollo Syafarudin. "ANALYSIS OF CRUDE PALM OIL (CPO) PRODUCTION VOLUME AND PRICE ON PROFITABILITYAND ITS IMPACT ON STOCK RETURNS", International Journal of Engineering Technologies and Management Research, 2020 Publication	1%

6	etd.uum.edu.my Internet Source	1%
7	www.semanticscholar.org Internet Source	1%
8	repository.ubaya.ac.id Internet Source	1%
9	Submitted to Kaplan International Colleges Student Paper	1%
10	Submitted to Kingston University Student Paper	1%
11	ejournal.undip.ac.id Internet Source	1%
12	journal.binus.ac.id Internet Source	1%
13	businessdocbox.com Internet Source	<1%
14	repository.upnvj.ac.id Internet Source	<1%

Exclude quotes	On	Exclude matches	< 10 words
Exclude bibliography	On		

Environmental disclosure and its determinants

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6