 https://doi.org/10.1051/e3sconf/202447904001

Disclosure of CO2 emissions, community complaints, occupational safety and its relation to financial distress

Etti Ernita Sembiring[1*], *Arry* Irawan[1], *Endah Dwi* Kusumastuti[1], *Nadya Ramahdani* Putri[1], and *Nadya Sofa Gitta* Ramadhani[1]

[1]Jurusan Akuntansi, Politeknik Negeri Bandung, Bandung, Indonesia

Abstract. The Indonesian government is committed to resolving emission issues through the development of green industries. The government encourages industries to transform into sustainable industries that are environmentally friendly. The Indonesian government asks the public and the market to put pressure on the industry to improve its environmental performance. The public can monitor and pressure companies through the disclosure of environmental performance information such as disclosure of CO2 emissions. In addition to environmental performance, disclosure of corporate social performance is no less important. Social performance relates to the company's responsibility towards employees (work accidents) and the surrounding community (community complaints). The risk of companies that have poor environmental performance and social performance can result in the company experiencing financial distress. This study aims to examine the effect of disclosure of CO2 emissions, community complaints, and work safety on Financial Distress. Financial Distress is measured using the Altman Z Score and operational cash flow adequacy. This study uses age and company size as control variables. The sample of this study is manufacturing companies listed on the Indonesia Stock Exchange from 2018-2021. This study uses the Common Effect Model (CEM) and Random Effect Model (REM). The results of the research show Disclosure of CO2 emissions, community complaints, occupational safety has no significant effect on financial distress. However, firm age and firm size have a significant positive effect on the adequacy of the firm's operating cash flow.

1 Introduction

Climate change and global warming are important issues being discussed around the world, even the United Nations and the World Meteorological Organization (WMO) have warned the whole world to seriously deal with the climate crisis. The earth's temperature has recorded an increase, so the current state of the earth is no longer at global warming but has led to global boiling.

* Corresponding author: etti.ernita@polban.ac.id

Indonesia is one of the largest greenhouse gas emitting countries in the world. The government is committed to solving the emission problem through the development of green industries. The government encourages the industry to transform into a sustainable and environmentally friendly industry. The Vice President of the Republic of Indonesia in 2020 revealed that although the government is trying to solve the problem through a regulatory approach, it would be effective if the community and the market also monitored and pressured the industry to improve its environmental performance. The public monitors the company's environmental performance through the disclosure of useful information.

In addition to environmental performance, disclosure of a company's social performance is equally important. Social performance refers to a company's responsibility to its employees and the surrounding community. Companies with good social performance build a good reputation in the eyes of their stakeholders. A good corporate reputation increases public trust and purchasing power, which in turn can increase a company's profitability. Conversely, a bad reputation in the eyes of the community can reduce consumer confidence in the company, which can affect the company's profitability. If not addressed early, it can lead to financial distress for the company. The results of the research by Gangi, et.al [1] show that corporate reputation affects the financial pressure on the company. The results of research by Jia & Li [2], and Boubaker et.al [3] show that improving environmental performance can reduce the risk of corporate financial pressure.

The risk that can arise if the company ignores environmental and social issues is the emergence of complaints/disputes from the surrounding community/environmental activists. Other risks are reprimands/sanctions from the government (Ministry of Environment and Forestry) and even closure of the business. Managing the risks that arise requires a lot of money to resolve them, thus affecting the company's finances.

Disclosing information about environmental and social performance can prevent greenwashing. Greenwashing is a strategy to achieve an environmentally friendly corporate image, but in practice, it is not optimal. Through information disclosure, information asymmetry can be minimized and companies will strive to improve their environmental and social performance practices.

This study aims to examine the effect of environmental performance and social performance on the risk of corporate financial distress. Research on the effect of environmental performance and social performance on the risk of financial distress in Indonesia is still small. The urgency of this research is that environmental performance and social performance are two things that have a great risk for companies and stakeholders but are sometimes neglected by companies. Companies are at risk of experiencing financial distress due to the high cost of problem-solving, wrong environmental investment, reputation repair costs, criminal charges, and even company closure. The results of this study are expected to provide empirical evidence for companies, decision-makers, and policymakers.

Agency theory states that the interests of the agent and the principal are different. Management should optimize the profits desired by the principal and minimize the risks associated with those profits. One way to reduce risk is to allocate resources to environmental investments. Environmental investment also requires in-depth analysis because the costs of environmental investment are real, but the benefits are difficult to explain.

Stakeholder theory states that companies must be responsible to all interested parties, not just shareholders, but also government, society, consumers, employees, and others. Stakeholder theory states that companies must be accountable to all of the company's stakeholders. The mismatch of stakeholder expectations of the company will affect stakeholder decisions that affect the company's finances. Investors and creditors will make decisions to protect their investments, which can lead to financial difficulties for the company.

Companies must comply with all applicable regulations. If the company ignores or fails to comply with applicable regulations, the company may be subject to sanctions that result in increased costs and reputational damage. This argument is also consistent with legitimacy theory. Legitimacy theory states that companies try to comply with applicable regulations. Compliance is aimed at avoiding government sanctions, minimizing financial losses to the company, and creating a good image for investors as a compliant company. According to the findings of Bednárová et al. [4], companies try to comply with applicable regulations. This is aimed at reducing or eliminating risks that may arise from non-compliance with regulations.

2 Methods

This study uses secondary data with documentary data collection techniques. The sample of this research is manufacturing companies that are listed on the Indonesia Stock Exchange from 2018 to 2021, and submit their annual financial reports. The reason why this research uses the type of manufacturing companies is because manufacturing companies are the largest companies listed on the Indonesia Stock Exchange, besides manufacturing companies are one of the types of companies that contribute the most carbon emissions in Indonesia. In this study, financial distress is measured using operating cash flow adequacy [5] and Altman Z-score value [6]. This study uses the Common Effect Model (CEM) and Random Effect Model (REM).

3 Result and discussion

The sample of this study was 140 manufacturing companies. The number of research data used in this study was 560. Companies that disclose their CO2 emission intensity have a lower Z-score. This indicates that the disclosure of the company's C02 emission intensity has a negative impact on the company, although it is not significant. C02 emission intensity is a measure of the carbon emission efficiency of activities or products. The lower the carbon intensity, the better. This result is different when financial distress is measured by operating cash flow adequacy. Fawzi, et al [7], Kamaluddin, et.al [8], and Veronica, et al [9] state that cash flow is a significant variable in predicting financial distress. Companies that disclose CO2 emission intensity have higher operational cash flow adequacy than companies that do not disclose CO2 emission intensity. This shows that companies' efforts to reduce C02 emissions do not affect the availability of operational cash flow. The reduction in the company's C02 emissions can be achieved through energy efficiency and the use of renewable energy sources. Efficiency in energy use can reduce the cash outlay against costs, so that it is in line with the results of the study, even if it is not significant.

Companies that disclose complaints from the community around the company have a higher Z-Score. Information about the existence of community complaints has a positive impact on the company. This may be because the information disclosed is that there are no complaints from the surrounding community against the company, or even if there are complaints from the community, but accompanied by information about the handling and resolution of the complaints. This may result in a positive stakeholder response to the information. However, companies that disclose community complaints have lower operating cash flow than companies that do not disclose community complaints. This may be due to the handling costs incurred by the company to resolve community complaints.

Companies that disclose workplace safety incidents have a higher Z-score. This shows that disclosure of workplace safety has a positive impact on the company, although it is not significant. In addition, companies that disclose safety have a higher operating cash flow adequacy than companies that do not disclose safety. Companies that disclose providing Occupational Health and Safety training to company employees have a higher Z-score than companies that do not disclose Occupational Health and Safety training. Information about the provision of Occupational Health and Safety training for employees elicits a positive response from stakeholders. Especially during the COVID pandemic. The COVID pandemic has changed many things in operational activities. In addition, there are new risks related to employee health, so training or socialization regarding the prevention of these risks becomes very important. This finding is supported when financial distress is measured by the adequacy of operating cash flow. Companies that disclose the existence of Occupational Health and Safety training have higher operating cash flow adequacy than companies that do not disclose Occupational Health and Safety training. The benefits of Occupational Health and Safety training will not be directly visible in the company's financials, but they will be visible if they are associated with risk mitigation measures. Stakeholders can understand this and respond positively. Stakeholders include not only shareholders, but also employees, suppliers, and customers.

This study uses two control variables, namely firm age and firm size. Both variables have no significant effect on financial distress as measured by the Altman Z-score. However, firm age and firm size have a significant positive effect on the adequacy of the firm's operating cash flow. The older the firm and the larger the firm (in terms of assets), the better the firm's operating cash flow adequacy.

4 Conclusion

Disclosure of CO2 emissions, community complaints, occupational safety has no significant effect on financial distress. Firm age and firm size have a significant positive effect on the adequacy of the firm's operating cash flow

References

1. F. Gangi, L. M. Daniele, and N. Varrone, Bus. Strateg. Environ. **29**, 1975 (2020)
2. J. Jia and Z. Li, Aust. Account. Rev. **32**, 188 (2022)
3. S. Boubaker, A. Cellier, R. Manita, and A. Saeed, Econ. Model. **91**, 835 (2020)
4. M. Bednárová, R. Klimko, and E. Rievajová, Sustainability **11**, 2549 (2019)
5. E. E. Sembiring, J. Bisnis Dan Akunt. **24**, 205 (2022)
6. Y. Shahab, C. G. Ntim, Y. Chengang, F. Ullah, and S. Fosu, Bus. Strateg. Environ. **27**, 1635 (2018)
7. N. S. Fawzi, A. Kamaluddin, and Z. M. Sanusi, Procedia Econ. Financ. **28**, 136 (2015)
8. A. Kamaluddin, N. Ishak, and N. F. Mohammed, Int. J. Financ. Res. **10**, 63 (2019)
9. M. S. Veronica, I. Ida, and V. T. Winata, J. Manaj. Indones. **20**, 114 (2020)