Research Article

The Effect of Audit Committee Size, Board Size, and Women on the Board on the Disclosure of Environment, Social, and Good Governance (ESG) Reports Before and During the COVID-19 Pandemic in Indonesian Mining Companies

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Abstract.
In terms of ESG disclosure moderated by the role of internal audit, the size of the audit committee, board of commissioners, and women on the committee were tested in this study. The control variables used were Covid dummy, leverage, and company size. This study used mining companies with the observation period 2016-2022. For this panel data analysis method, a panel regression model was used. The novelty of this research is testing before and after the pandemic for ESG and using Bloomberg ESG data. The results of this study are inconsistent with previous research, which states that the size of the audit committee, board of commissioners, and women on the committee have no impact because each company studied has an internal audit division. The audit committee and board of commissioners in ESG disclosure are responsible for overseeing management policies, general management operations, and providing advice. The research shows that ESG disclosure moderated by the internal audit is not influenced by audit committee size, board, and women on the committee.

Keywords: audit committee size, board size, dummy Covid, ESG, women on board

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1. Introduction

There are efforts to lessen global warming because it is an inescapable fact of the modern world and a serious concern. strategies like advocating for limits on greenhouse gas emissions and setting aside funds for climate change mitigation in order to improve the planet. Therefore, POJK No. 51 of 2017 is a regulation that requires all public companies in Indonesia to implement sustainable finance. In addition, companies must provide information on three main pillars: environment, social responsibility, and corporate governance (or ESG). The Indonesia Stock Exchange (BEI) is committed to achieving sustainable progress through the publication of information regarding

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ESG at www.esg.idx.co.id. On that basis, companies are competing to improve their Environment, Social, and Good Governance (ESG) values. Companies must be wise in managing funds related to programs and Environment, Social, and Good Governance (ESG). Companies can start small things such as saving energy in order to reduce costs and spend money in implementing ESG so that the existence of ESG is not only to spend costs in vain but also must think about the long-term good goals that will benefit current and future generations [1].

The importance of sustainability performance aspects for companies has increased investor attention to gain a level of confidence that the company can operate in the long term and can fulfill the interests of shareholders. Sustainability components include environmental, social and governance performance aspects. These components are critical to protecting the business from unfavorable short-term interests that could jeopardize the value of the company [2].

Because they frequently have significant negative effects on the ecosystem, such as the water, soil, and because they frequently have negative effects on the environment, such as biodiversity loss, and contamination of the air, water, and soil, mining firms have a bad reputation. For instance, PT Berau coal - sambarata site (SMO) carries out various utility activities such as reclamation, IPAL, utility mining, and workshops, as well as land clearing, drilling and blasting, material transfer, coal collection, transportation, crushing, and transporting coal for stockpiling. With 2.91 x 10-1 kg CO2eq per ton of coal, 6.60 x 10-6 kg CFC-11eq per ton of coal, 1.19 x 10-1 kg SO2eq per ton of coal for acid rain, 3.37 x 10 -1 kg CO2eq per ton of coal for ozone depletion, and eutrophication 3.37 x 10-1 kg respectively, material removal procedures provide the most significant impact [3]. This makes the Environment, Social, and Good Governance (ESG) value can get a bad ESG rating. in addition, many assume that the company is ineffective in managing environmental impacts. The more the company is in an industry that is at risk of damaging the environment, the more it will disclose [4]. Businesses have struggled in the pandemic year due to the Social Restrictions policy implemented by the Indonesian government as part of efforts to stop the spread of the virus. This causes an effect on existing companies because their activities are limited, such as employees having to work at home so that there are delays in production and disruption of existing business processes, coal companies get Environment, Social, and Good Governance (ESG) scores increased according to the media www.pwc.com published on August 3, 2021 [5].

During the peak of the COVID-19 crisis, mining businesses with higher Environmental, Social, and Good Governance (ESG) ratings did better than the whole market. Over the last three years, they have produced average total shareholder returns of 34%, which is ten percentage points more than the general market index. From this, there are factors that make Environmental, Social and Good Governance (ESG) values increase or decrease related to environmental issues. Companies that have good governance values and care about the environment add value. For this reason, companies are competing to increase their value. Corporate governance organs, namely audit committee, board of commissioners and internal audit, are important in ESG disclosure.

Previous literature has extensively investigated the role of AC Size in positive directional ESG disclosure to [6][7][8]. In addition, there are also those who state that ESG Disclosure is influenced by Audit Committee Size in a negative direction, among others [9]. While Audit Committee Size has no effect on ESG Disclosure is also stated by the research results from [10][11]. Board Size on ESG Disclosure including that ESG Disclosure is influenced by Board Size in a Positive direction according to [8][12][13][14][15][16]. In addition, there are also those who state that ESG Disclosure is influenced by Board Size in a negative direction, including [17][18]. While Board Size Size has no effect on ESG Disclosure is also stated by the research results from [19]. And for Women on Board on ESG Disclosure, among which ESG Disclosure is influenced by Women on Board in a Positive direction according to [16][20][21]. Meanwhile, Women on Board has no effect on ESG disclosure, also stated by the research results from [22] and [23].

Based on the literature, it is known that research on AC by [24] using Covid Dummy as a control variable to evaluate whether there is an ESG impact. And [18] also tested CSR before and after COVID with the board of commissioners as the independent variable. Differentiation of this research from previous research is to use Dummy Covid as a control variable and other Corporate Governance (CG) organs, namely the board of commissioners and committees board and add Internal Audit as a Moderating Variable. Limitation of this reset mining companies in Indonesia have few ESG Bloomberg values.

2. Material and Methods

2.1. Audit Committee Size

In Law No. 40 of 2007 Article 121 paragraph 1 outside parties who are not affiliated with issuers or public companies can also form an audit committee as part of the committee formed by the board of commissioners. The audit committee must also be formed by the issuer or public company and consist of at least three people. The chair of the audit committee, who is also an independent commissioner, has a positive effect: the larger the size of the committee, the greater the presence of the committee on the board. As a result, the board may accept the audit committee's recommendation about how much the bank should voluntarily disclose. Additionally, they support regulators' push to set minimum audit committee sizes. The results show that smaller boards have the ability to convey sustainability information and make better decisions than larger boards. [6]; additionally, companies with larger audit committees have a better ability to monitor and report responsibilities, which means more CSR disclosures [7] audit committees carry out a role in overseeing company performance [8]. Internal auditors have the ability to strengthen the link between corporate management and greenhouse gas emissions disclosure. Companies can utilize internal auditing and implement good corporate management to improve corporate accountability and value in the eyes of stakeholders. [8]

H1: There is a positive and significant relationship between Audit Committee Size and ESG Disclosure in internal audit moderation.

2.2. Board Size

The duty of the board of commissioners to supervise and provide advice to the board of directors is regulated in the Financial Services Authority No. 33 of 2024. And the role of shareholders to monitor the overall performance of the Issuer or Public Company through the GMS. The number of commissioners increases, causing monitoring to be easier and more effective to control the CEO, which can then provide pressure for management to disclose CSR [15]. Management functions as a liaison between the company's various shareholders [8]. Internal auditors have the ability to strengthen the link between corporate management and greenhouse gas emissions disclosure. Companies can utilize internal auditing and implement good corporate management to improve corporate accountability and value in the eyes of stakeholders [8].

H2: There is a positive and significant relationship between Board Size and ESG Disclosure in internal audit moderation.

2.3. Women on Board

Female board members will provide more flexible ideas because they can serve as mediators in the event of a situation that is less conducive [16]. companies that have female board members will provide more social and charitable activities [20]. Female board members will provide more flexible ideas because they can function as mediators in the event of a less conducive situation [21]. Companies can utilize internal auditing and implement good corporate management to improve corporate accountability and value in the eyes of stakeholders [8].

H3: There is a positive and significant relationship between Women on Board and ESG Disclosure in internal audit moderation.

This research uses Bloomberg data and company annual reports. Data taken ESG, Audit Committee Size, Board Size, and Women on Board from Bloomberg from 2016 - 2022. financial reports and annual reports issued by companies listed on the Indonesia Stock Exchange are used as sources of financial data.

This study uses companies listed on the Indonesia Stock Exchange Non-Financial as research subjects in 2016-2022. This study also selected a sample of companies that have Bloomberg's ESG score.

According to the sample withdrawal results, up to 12 companies were selected as research samples over the course of 7 periods, yielding a total sample size of 84 samples. The following is the equation model used:

ESG = α + β_1ACZ *IA+ β_2 BZ *IA + β_3WB *IA + β_4FZ + β_5Lev+ β_6 Covid + e

Description:

ESG = Environment, Social, and Good Governance

ACZ = Audit Committee Size

BZ = Board Size

WB = Women on Board

FZ = Company size

Lev = Leverage

Covid = Covid Pandemic Period

IA = Internal audit

3. Results and Discussion

With reference to the sample criteria that have been determined, the company's sample and total observations for this study are as follows:

The ESG variable has an average score of 4.79 maximum 73.87 and minimum 22.08. The mean of the Audit Committee Size (ACZ) variable is 3.30, maximum 5, and minimum 2. The mean of the Board Size (BZ) variable is 5.86, max-maximum 10, and minimum 3. Women on Board (WB) for a mean of 0.42 maximum 3, and min-minimum 0. Internal Audit has a mean of 1, maximum 1, and minimum 1. Covid Pandemic Period (Covid) has a

Table 1: Measurements.

Variable	Acronym	Measurement
Dependent variable		
1. Environment, Social, and Good Governance	ESG	ESG Bloomberg Score
Independent variables		
1.Audit Committee Size	ACZ	Total number of AC members
2.Board Size	BZ	Total number of Board members
3.Women on Board	WB	Percentage of female on the board
Control variables		
1. Firm size	FSIZE	Log of book value of total assets
2.Leverage	LEV	Total liabilities is divided by the book value of total assets
3. Year of the covid pandemic	Covid	Dummy variable 1 for years 2016 through 2019 and value 0 if for 2020 through 2022
Moderating variables		
1. Internal Audit	AI	The dummy variable is 1 for internal audits carried out by company employees, and has a value of 0 otherwise

Table 2: Criteria for Sample and Total Observations.

Criterion	Total Amount
Businesses listed from 2016 to 2022 on the Indonesia Stock Exchange (IDX)	47
Businesses without an ESG score on Bloomberg	-35
Total Company	**12**
Total Observations (7-year periods multiplied by 12 companies	**84**
In a given year, there are 12 companies that have no ESG value	**-1**
Total sample	**83**

mean of 0.42, maximum 1, and minimum 0. Leverage (Lev) has a mean of 0.48 maximum 1.90, and minimum 0.03. Firm size (FZ) mean 8.28 maximum 10.53, and minimum 5.60

The results of this test show the Prob. value of 0.000 < 0.05 so it uses Partial Least Square (PLS).

The result of this test is the best value if the common effect is 0.000 smaller than 0.05. The results show that the Partial Least Square (PLS) random effect (REM) model is the best.

The results of this test show that the probability value is 0.9792 > 0.05 so that the random effect model (REM) test will be used.

Table 3: Summary statistics.

Panel A	N	Mean	SD	Min	Max
ESG	83	4,79	14,02	22.08	73.87
ACZ	83	3,30	0,56	2	5
BZ	83	5,86	1,47	3	10
WB	83	0,42	0,66	0	3
IA	83	1	0	1	1
Covid	83	0,42	0.50	0	1
Lev	83	0,48	0.28	0.03	1,90
FZ	83	8,28	1,41	5,60	10,53

Table 4: Chow Test Results.

Effect Test	Statistic	d.f.	Prob
Cross-Section	F (11, 65)	28.45	0.0000

Table 5: LM Test Results.

Effect Test	Results
Cross-Section Chi-square	55.3
Prob>chibar2	0.0000

Table 6: Hausman Test Results.

Effect Test	Results
Cross-Section Chi-square	1.15
Prob>chibar2	0.9792

Table 7: Random Effect Model (REM).

Variables	Coefficient	Std. Error	t-statistic	Prob
ACZ*IA	-1.8471160	1.6508780	-1.12	0.263
BZ*IA	0.9784865	0.7535771	1.30	0.194
WB*IA	0.7555699	1.4667500	0.52	0.606
Covid	1.1318410	1.4175650	7.98	0.000
Lev	-5.7865850	4.3239120	1.34	0.181
FZ	0.6916381	1.7044910	0.41	0.685
R-squared	0.18973000			
F-statistic	0.0000000			
The random model (REM) is used to analyze panel data regression				

3.1. Effect of Audit Committee Size on ESG Disclosure

With a probability value of 0.263, Audit Committee size has no influence on ESG Disclosure, as shown in Table 7. The research results from [6][7][8]. This suggests that the larger the size of the Audit Committee, the greater the opportunity for ESG disclosure; thus, a larger Audit Committee size may result in greater and more efficient disclosure of information about its oversight and responsibility reports. This result is consistent with empirical research by [10][11], which shows that the age of the board of commissioners does not affect CSR disclosure. After being moderated by internal audit, the size of the Audit Committee has no effect because each company studied has an internal audit division. In this study, most of the sample companies had the same audit committee, namely 3 people. These companies also meet the minimum requirements for the number of audit committees stipulated in OJK Regulation Number 55 / POJK.04 / 2015 [10].

3.2. Effect Board Size on ESG Disclosure

With a probability value of 0.094, the size of the Board of Commissioners has no influence on ESG Disclosure, as shown in Table 7. This result contradicts the findings of the research report [8][15]. This suggests that the larger the size of the board of commissioners, the greater the opportunity for ESG disclosure, which means more disclosure can occur in companies with larger audit committees that can more effectively track and report responsibilities. in line with research [19] found that the board of commissioners is responsible for overseeing overall management policies and procedures, providing advice to directors, and is responsible for company losses if the person concerned is guilty or negligent. Therefore, the board's attention is more focused on the financial aspects. Organizations have not seen the need to track other elements, such as social and environmental elements. Due to the increasing number of green customers and reduced government oversight, environmental aspects receive less attention. After being moderated by internal audit, board size has no effect because each company studied has an internal audit division.

3.3. Effect Women on Board on ESG Disclosure

With a probability value of 0.606 Table 7 shows that women committee members have no influence on ESG Disclosure. Research results from reports [16] [20] and [21] are not in line. This suggests that ESG disclosure opportunities will increase if there are female board members. This means that female board members will be more involved in social and charitable activities and make greater disclosures. This result is consistent with the empirical study conducted by [22], which shows that board age does not affect CSR disclosure. A high percentage of female directors is not necessarily able to influence the level of social disclosure, which suggests that women are more sensitive to issues that attract the attention of others. Recommendations on the gender composition of the board are not considered important in cultures with strict power distance, as everyone knows where they stand. Traditional gender roles suggest that women will not be well represented on corporate boards. The higher the power distance, the less likely the requirements related to board gender composition [23]. After being moderated by internal audit, women in meetings have no effect because each company studied has an internal audit division.

4. Conclusion

Empirical results show that Audit Committee Size, Board Size, Women on Board have no influence on ESG disclosure. The three variables are moderated by the internal audit variable, the results also have no influence on ESG disclosure, this is because all the companies studied have an internal audit division so that the value is 1 (one) and none is worth 0. Company size and Leverage as control variables also have no influence on ESG disclosure. What affects ESG disclosure is the Covid Pandemic Period. However, this research is not free from limitations. First, this study only uses a seven-year period. many mining companies in Indonesia do not yet have Bloomberg scores. Future researchers can expand the sample such as by adding examples such as non-financial sectors in Indonesia, and can increase the number of examples tested and add variability related to company management.

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Conflict of Interest

The authors declare no conflict of interest.

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