

DOES MANAGERIAL OWNERSHIP MODERATE THE VALUE RELEVANCE OF EARNINGS AND EQUITY OF SUSTAINABILITY REPORTING?

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Abstract

This study examines the value relevance of earnings and equity of sustainability reporting through direct effect and managerial ownership as an intervening variable. This research employed quantitative data using secondary data from firms listed in IDX80, an Indonesia Stock Market index, in 2022. Also, this study used the financial elements data derived from www.idx.co.id and www.stockbit.com as complimentary. At the same time, ESG Score data were taken from www.csrhub.com. Data testing was then performed utilizing multiple linear regression analysis for cross-section data. This study concludes that sustainability reporting is positively associated with the value relevance of earnings and equity while the increases in management ownership moderate negatively to the value relevance. This study contributes to the literature on value relevance and sustainability reporting by updating the study of the value relevance of sustainability reporting both from direct influence and through managerial ownership as an intervening variable. This study is expected to suggest that the Financial Services Authority (OJK) improve financial policies in the capital market by adapting the measurement indicators in the ESG score version of CSRHUB in the POJK.

Keywords: Value Relevance, Sustainability Reporting, Managerial Ownership.



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Over time, there have been several modifications in the company's reporting. Initially, the company's reporting solely consisted of financial statements. However, an issue arose as stakeholders and shareholders could not utilize these financial statements as a foundation for decision-making. This predicament arose because the financial statements prepared by management often fail to accurately depict the company's true condition, thus leading to the misguidance of financial statement users. Consequently, there has been an increasing demand for reports other than financial reports, specifically sustainability reports such as corporate social responsibility (CSR) and sustainability reporting (SR). As stated by Kuzey & Uyar (2017), sustainability reports complement the financial information presented in the financial statements, as they reveal the long-term value creation embodied in intangible assets, namely environmental and social responsibility.

In response to the inclining sustainability disclosure demand, Indonesia has adopted sustainability reporting as a mandatory disclosure as of January 1, 2019, by establishing (Peraturan Otoritas Jasa Keuangan Nomor 51 /POJK.03/2017 Tentang Penerapan Keuangan Berkelanjutan Bagi Lembaga Jasa Keuangan, Emiten, Dan Perusahaan Publik, 2017). However, some would argue that the value relevance differs between voluntary and mandatory disclosure (Halimah et al., 2020). Larrinaga et al. (2018) stated that the outcome of mandatory sustainability accounting for public sector organizations that the Spanish government made in 2011 was very disappointing. Ozili (2022) added that making sustainability accounting mandatory for organizations may not be a good idea. Establishing standards for sustainability reporting could make it challenging to distinguish high-quality companies that report beyond standards from those that only report based on the standard required. Moreover, a significant increase in the volume of information companies disclose due to standardization may lead to another issue. Stakeholders and shareholders cannot better utilize this overflowing information as a foundation for decision-making and may increase asymmetric information within the company.

Theoretical studies suggest that the main purpose of conducting value relevance tests is to expand our knowledge regarding the relevance and reliability of certain accounting numbers as information used by investors to value a firm's equity (Barth et al., 2001). Such an objective is consistent with the input-to-equity theory of valuation theory. Providing information that investors use as inputs to valuation models in assessing a firm's equity is the role of accounting (Holthausen & Watts, 2001). Moreover, during the past few decades, there has been a significant increase in the volume of information that companies disclose. They disclose financial and non-financial information reflected in financial statements.

However, low-value relevance suggests that the accounting data provided is of limited utility to investors when deliberating on choices in the financial market. The existence of asymmetric information between managers and investors leads to the latter not invariably relying on financial report figures and facts when making decisions in the capital market. It is suspected that investors do not consistently believe that the information disclosed by the company is in line with their interests. Poor quality information is also considered to have earnings management practices detrimental to investors (Scott, 2015). Meanwhile, sustainability reporting offers advantages to investors, provided that the information can enhance the value relevance. Therefore, value-relevance research needs to be done.

Many studies have examined the value relevance of information on corporate disclosure, be it financial information (Hellström, 2006; Kerr, 2019) and/or non-financial information (Cortesi & Vena, 2019; Sutopo et al., 2018). Then, value relevance testing has previously been conducted with corporate social responsibility (Firmansyah & Yusuf, 2020; Govindan et al., 2021), accounting firm size (Abdollahi et al., 2020; Lee & Lee, 2013), comprehensive income (Djaballah & Fortin, 2021; Khan et al., 2018), and corporate governance (Ariff & Hashim, 2014; Firmansyah & Yusuf, 2020). Some studies are limited to one context, mandatory or voluntary (Halimah et al., 2020). So far, several studies have compared the relevance of value and sustainability reporting in Indonesia, including (Cahyaningtyas et al., 2023; Farhana & Adelina, 2019). However, to our knowledge, none involve managerial ownership as the moderating variable.

The environmental (E), social (S), and (corporate) governance (G) indicators, or ESG, are non-financial factors that have become increasingly important and popular among investors. Studying ESG is a part of investment portfolio analysis that helps to identify opportunities and potential risks. Moreover, the indicator helps investors interested in sustainable investments to avoid investing in companies subject to financial risk due to environmental practices and controversial business practices (Şerban et al., 2022). ESG score is an objective measurement or evaluation of a company, fund, or security's performance concerning Environmental, Social, and Governance (ESG) issues. We use ESG Score data taken from www.csrhub.com to measure the consensus view of the societal impact of entities based on aggregating over 929 sources of ESG data and publishing ratings. It is relevant because companies in Indonesia prepare sustainability reports using various standards, some of which continue to use GRI Standards even though POJK has been in effect, so the ESG score from [csrhub](http://www.csrhub.com) can accommodate various standards. Thus, the ESG Score related to the usefulness of the accounting information needs further investigation.

This study examines the effect of sustainability and value relevance with managerial ownership as the moderating variable. The study conducted by Halimah et al. (2020) has compared the relevance of value and sustainability limited to one context, namely mandatory or voluntary, while Cahyaningtyas et al. (2023), and Farhana & Adelina (2019) investigated the relevance of value and sustainability reporting in Indonesia. Nevertheless, these studies did not examine managerial ownership as the moderating variable. Therefore, based on mapping previous research related to the relevance of value and sustainability, testing sustainability reporting using ESG score for value relevance is very important, especially moderated by managerial ownership and using data from companies in Indonesia.

Managerial ownership can be taken into consideration in sustainability disclosure. High managerial ownership can address the agency problem within the company (Sholikha et al., 2023). Agency problems are conflicts of interest in any relationship, expecting one party to act in the other's best interest – in this case, between principal and management. Agency problems are also expected to be controlled by managerial ownership (Widianingsih, 2018). The agency theory implies a relationship between managerial ownership and firm value (Fahlenbrach & Stulz, 2007). Management ownership will affect management decision-making and accountability reports as it will affect himself and the shareholders (Sholikha et al., 2023). The relevance of managerial ownership to firm value derives from the ownership level (Fahlenbrach & Stulz, 2007). The greater the managerial ownership of a company, the better the alignment of interest between management and investors (Jensen & Meckling, 1976).

The intersection of managerial ownership, sustainability reporting, and financial performance has emerged as a pivotal area of inquiry. As companies increasingly embrace sustainability initiatives and disclose related information to stakeholders, understanding how managerial ownership influences the value relevance of such reporting becomes imperative. The alignment of interest suggests that management has a certain incentive to report sustainable performance, which ultimately leads to higher management compensation due to higher stock prices and pay-to-performance of the management. We expect that the effect of sustainability reporting moderated by managerial ownership affects the market value of equity. The fundamental question of this study is whether the adoption of sustainability reporting and managerial ownership affects the stock market price. Therefore, we are motivated to assess the difference in the value relevance of adopting sustainability reporting with the moderation of managerial ownership.

Utilizing data from firms listed in the IDX80 index, this research employs multiple linear regression techniques to assess the association between sustainability reporting and earnings and equity value relevance. IDX80 is an index that measures the price performance of 80 shares with high liquidity and large market capitalization and is supported by good company fundamentals. High liquidity stocks align with the price model used in this research because the nature of stock price fluctuates based on information posted in the company's annual report. By integrating managerial ownership as a moderating variable, the study seeks to elucidate how variations in ownership structure impact the relationship between sustainability disclosure and market valuation. The findings of this study hold significant implications for corporate governance practices, investor decision-making processes, and regulatory frameworks. Insights gained from this research will contribute to a deeper understanding of how ownership dynamics shape investor perceptions of sustainability performance and influence market valuation. Ultimately, this study endeavors to advance scholarly discourse on corporate governance

mechanisms, sustainability reporting practices, and their collective impact on market dynamics and stakeholder interests in the contemporary business landscape.

LITERATURE STUDY

Signaling Theory

As Ross (1977) explained, signaling theory explains that firms voluntarily report more information to the market than what is demanded to increase firm value. This behavior by management determined the decision-making of investors by providing a signal (Spence, 1973). Companies' management signals certain information to demonstrate that the companies are superior in a certain way compared to their competitor in the market to attract investors and build a positive reputation (Verrecchia, 1983). The signal that describes the firm value given through the accounting number in the financial statement needs to be highly relevant (Scott, 2015) to be appropriately interpreted by stakeholders (Rokhlinasari, 2015). Should the information presented in the financial statement be considered relevant, it will positively signal investors' decision-making to invest (Firmansyah et al., 2022). As such, the signaling theory is related to asymmetric information because the information received by each party is not similar, or one party has better information than the other party (Fahmi et al., 2019). Higher investors' trust in the company results in higher stock prices (Firmansyah et al., 2022). Thus increasing the company's stock return.

Nowadays, financial information alone cannot give enough information for an investor in their decision-making. Berthelot et al. (2012) and Edgeman et al. (2015) explained that stakeholders need more. Comprehensive information due to the global warming effect emphasizes the importance of environmental and social issues. This phenomenon incentivizes management to disclose environmental and social performance through sustainability reporting. Based on the Global Reporting Initiative Standard (GRI), sustainability reporting reports economic, environmental, and/or social impacts to internal and external stakeholders and, hence, its positive or negative contributions towards sustainable development.

Signaling theory shows how companies convey information about their performance and prospects to investors through various signals, including sustainability reports. On the other hand, investors use these signals to assess the risks and potential returns of investing in the company, while agency theory focuses on the relationship between a company's owners (principals) and its managers (agents). Sustainability reporting can be seen as a mechanism to mitigate agency problems by increasing management transparency and accountability. It allows investors to monitor management performance and ensure they act in shareholders' best interests.

Additional information in sustainability reporting allegedly signals investors to assess firm value (Kaspereit & Lopatta, 2016; Kuzey & Uyar, 2017; Landrum & Ohsowski, 2018). Hence, high-quality firms have incentives to signal their quality by disclosing their sustainability performance, which is reflected in a higher market value (Halimah et al., 2020). Not only as a signal provider, according to stakeholder theory, disclosure of sustainability also works as a form of companies's accountability to their stakeholders (Farhana & Adelina, 2019).

Sustainability reports are often associated with relevant value. The research results (Farhana & Adelina, 2019) showed that investors use sustainability reports as value-added information in making investment decisions. Investors focus on short-term or corporate profits and the company's long-term sustainability and earnings to satisfy all stakeholders. Sustainability reporting is relevant as it makes differences to the user's decision and is measured reliably enough to be reflected in equity values (Barth et al., 2001).

H1: Sustainability reports are positively associated with value relevance.

Managerial ownership of the company is said to be able to influence managerial policy in carrying out the interests of shareholders, and agency problems are also expected to be controlled by managerial ownership (Widianingsih, 2018). Management ownership will affect management decision-making and accountability reports as it will affect himself and the shareholders (Sholikha et al., 2023). As the demand for the disclosure of sustainability performance arises, management ownership somehow affects the company's accountability report. The alignment of interest, as explained in agency theory, suggests that management has a certain incentive to report sustainability performance, which ultimately

leads to higher management compensation due to higher stock prices and pay-to-performance of the management. Therefore, managerial ownership affects the relevance of sustainability reporting. Based on the description above, it can be concluded that the hypothesis is as follows:

H2: Managerial ownership strengthens the positive association of sustainability reports with value relevance.

RESEARCH METHODOLOGY

The data employed in this research are 80 firms listed as IDX80 Index Constituents for August 2023 - January 2024 for 2022. IDX80 is one index regularly monitored by investors, thus accommodating many decision-making processes. Indonesia Stock Exchange (IDX) regularly evaluates IDX80 Index Constituents every January and July. Given the frequent amendments to the constitution, the specific timeframe chosen for analysis likely won't significantly impact the results, as the overall impact seems negligible. August 2023 - January 2024 was selected as this research was conducted during this period. The data on financial elements are mainly derived from IDX's official website (www.idx.co.id). Book Value per Share (BVS), Earning per Share (EPS), Return on Assets (ROA), total assets, and total liability data are taken from the Financial Report and Ratio of Listed Companies in IDX from the Digital Statistic menu, while price data are taken from Table of Stock Price in the same menu. Managerial Ownership (MO) ratio data derived from data provided by Stockbit (www.stockbit.com) as the Financial Report and Ratio in IDX does not accommodate MO ratio. ESG Score data were taken from CSRHUB (www.csrhub.com), a web-based tool that rates the most well-known businesses in North America, Europe, and Asia according to factors such as employee, environmental, community, and governance ratings. CSRHUB provides an ESG score of 77 out of 80 firms of IDX80. The three unprovided-ESG score companies by CSRHUB are Jaya Konstruksi Manggala Pratama Tbk (JKON), PT Jayamas Medica Industri Tbk (OMED), and PT RMK Energy Tbk (RMKE). CSRHUB does not have adequate data to assess the scores of these companies. Nevertheless, the excluded firms have a small contribution to IDX80.

Each index is weighted 0.04% to the index with a total weight loss of 0.12%. Thus, excluding the three companies due to incomplete ESG score data is insignificant. The final samples used are as follows:

Criteria	Amount
Initial Sample	80
Incomplete Company Data (ESG Score)	3
Final Sample	77

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Table 1.
Sample Selection

Source: processed

The dependent variable used in this research is value relevance using the price model developed by (Ohlson, 1995) and in line with studies done by Almagtome & Abbas (2020), Firmansyah et al. (2022), Firmansyah & Yusuf (2020). The price model is an unbiased estimator (Cortesi & Vena, 2019; Kothari & Zimmerman, 1995) because it reflects historical and surprising information cumulatively. However, the price model may suffer from heteroscedasticity (Cortesi & Vena, 2019). Thus, Huber White's robust standard errors are adopted (White, 1980). The price model was measured using the following formula:

$$PRICE_{i+1} = \beta_0 + \beta_1 EPS_i + \beta_2 BVS_i + \epsilon_i \quad (1)$$

Where,

$PRICE_{i+1}$: Share price as of the beginning of April of the following year;

EPS_i : Earnings per share of the company i ; and

BVS_i : Book value per Share of the company i .

As for the independent variable, ESG score (ESG) is used as a proxy to measure sustainability reports' adoption impact on a firm's market value, in line with (Halimah et al., 2020). The significance of *ESG* indicates that adopting a sustainability report effectively increases the quality of reporting and creates value for investors (Cortesi & Vena, 2019). ESG scores used in this research were taken from CSRHUB (www.csrhub.com). CSRHUB is a web-based tool that rates the most well-known businesses in North America, Europe, and Asia according to factors such as employee, environmental, community, and governance ratings. Data from over 600 non-governmental organizations (NGOs), government agencies, news feeds, social networking groups, smaller for-profit organizations, publishers, and ten of the top socially responsible investment (SRI) analysis firms—also known as Environment, Social, Governance/ESG—are combined to create a ranking score ranging from 0 to 100. The higher the ranking score, the better the company's sustainability report quality.

Table 2.
ESG Ranking
Score

ESG Ranking Score	
Level 1	0-29
Level 2	30-39
Level 3	40-49
Level 4	50-59
Level 5	60-79
Level 6	80-100

Source: csrhub.com

Next, MO is applied to see its moderating effect with an independent variable. In line with Romadoni & Pradita (2022), MO is measured by:

$$MO = \frac{\text{Share owned by management}}{\text{Total share}} \quad (2)$$

Considering other exogenous factors that may affect market price, this research includes profitability, leverage, and firm size as control variables. ROA is employed as a proxy of profitability, in line with Ayturk et al. (2016), Firmansyah & Yusuf (2020), and Utomo et al. (2016).

$$ROA = \frac{\text{Income before tax}}{\text{Total assets}} \quad (3)$$

Leverage (LEV) is measured by the ratio of total liabilities divided by the company's assets following Mutiha (2022).

$$LEV = \frac{\text{Total liabilities}}{\text{Total assets}} \quad (4)$$

Lastly, the proxy used to measure firm size (SIZE) follows Firmansyah & Yusuf (2020) and Utomo et al. (2016), which were obtained by applying the natural logarithm to the company's total assets.

$$SIZE = \ln(\text{Total assets}) \quad (5)$$

Multiple linear regression for cross-sectional data is employed to test the hypothesis built in this research. The equation model is as follows:

$$\begin{aligned} PRICE_{i+1} = & \beta_0 + \beta_1 EPS_i + \beta_2 BVS_i + \beta_3 ESG_i + \beta_4 (ESG_i * EPS_i) + \beta_5 (ESG_i * BVS_i) + \\ & \beta_6 MO_i + \beta_7 (ESG_i * EPS_i * MO_i) + \beta_8 (ESG_i * BVS_i * MO_i) + \beta_9 ROA_i + \beta_{10} LEV_i + \beta_{11} SIZE_i + \epsilon_i \end{aligned} \quad (6)$$

Where,

$PRICE_{i+1}$: Share price as of the beginning of April of the following year;

EPS_i : Earnings per share of the company i;

BVS_i : Book value per Share of the company i;

ESG_i : ESG score of the company i;

MO_i : Managerial ownership ratio of the company i;

ROAi : Return on assets of the company i;
 LEVi : Leverage of the company i; and
 SIZEi : Firm size of the company i.

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Based on this model, ESG has value relevance if β_4 and β_5 have a significant effect, and MO has a moderating effect on the value relevance of ESG if β_7 and β_8 have a significant effect.

RESULTS AND DISCUSSION

Variable	Obs	Mean	Std. dev.	Min	Max
PRICE	77	3692.481	6324.275	110	39900
EPS	77	571.8182	1999.224	-33	16560
BVS	77	3002.084	5675.317	101.59	31089.77
ESG	77	64.06494	18.686	15	99
MO	77	0.054416	0.142971	0	0.712
ROA	77	0.076234	0.09158	-0.29	0.45
LEV	77	0.45026	0.230451	0.03	0.87
SIZE	77	24.61403	1.287349	22.13	28.32

Source: processed from STATA/ MP 17.0

Table 3.
Descriptive
Statistics

Table 2 shows the descriptive statistics for each variable employed in this study. Descriptive analysis includes mean, minimum, maximum, and standard deviation. The highest share price belongs to ITMG, with a value of Rp39,900, while GOTO has the lowest share price, with Rp110. The share price always has a value of more than zero. The average value of EPS is Rp571.81, ranging from -Rp33, owned by GOTO, to Rp16,560, owned by ITMG. The average value of BVS is Rp3002.08. The maximum value of BVS owned by GGRM is Rp31,089.77, and the minimum value of BVS owned by GOTO is Rp101.59. The report shows that the average value of ESG is 64.06. The highest ESG score achiever is ITMG, with a score of 99; the lowest score is owned by ESSA, with a score of 15. The minimum value of MO is 0, and 21 firms own it. Their annual reports stated that neither the commissioner nor the director board owned shares. The maximum value of MO belongs to BRPT with 0.712.

The multiple linear regression test of the equation model regression with robust standard errors is shown in the table below:

Variable	Coefficient	t-Statistic	Probability	
C	-8189,8540	-1.34	0.0930	*
EPS	-5,7852	-1.92	0.0295	**
BVS	0,5498	2.67	0.0050	***
ESG	-5,9777	-0.44	0.3315	
ESG*EPS	0,0537	2.03	0.0230	**
ESG*BVS	0,0114	1.83	0.0360	**
MO	1287,0610	0.94	0.1745	
MO*ESG*EPS	-0,0492	-1.77	0.0410	**
MO*ESG*BVS	-0,0203	-2.51	0.0070	***
ROA	7493,5750	2.61	0.0055	***
LEV	-530,0747	-0.62	0.2705	
SIZE	366,9014	1.42	0.0800	*
R-Squared		0.9227		
F-Stat		243.48		
Prob (F-Stat)		0.0000		

Source: processed from STATA/ MP 17.0.

Table 4.
The Summary of
Hypothesis
Testing

As shown in Table 3, the hypothesis testing suggests that ESG was positively associated with the value relevance of earnings (EPS) and equity (BVS). This finding is in line with the study conducted by Halimah et al. (2020) and Mutiha (2022) but differs from Cahyaningtyas et al. (2023) that the results show that sustainability reporting is negatively associated with the value relevance of earnings and equity. According to signaling theory, companies voluntarily convey additional positive information to the market to attract investment. The association between ESG and value relevance conveys that a higher sustainability performance impacted higher earning and equity performance. Increasing earning and equity performance positively signals investment (Loh et al., 2017; Petcharat & Zaman, 2019). It proves the value and relevance of sustainability reporting, which increases information transparency for investors and influences their decision-making.

However, the equation results show that EPS and BVS, consecutively, negatively and positively influenced the stock market price. This finding is in line with Firmansyah & Yusuf (2020). Investors use book value and earnings information to decide whether to invest, ultimately fluctuating the company's stock price (Cardamone et al., 2012; Kumar, 2017; Sridhar, 2012). Thus, BVS and EPS value relevance. The interaction between ESG, BVS, and EPS shows that ESG is positively associated with BVS and EPS. This concluded that, in a way, sustainability reporting is positively associated with the value relevance of a firm from the earning and equity aspects. The findings of this study indicate that sustainability reporting is value-relevant during the mandatory period of sustainability reporting in Indonesia, which is in line with Mutiha (2022). In addition, this study confirms the studies conducted by Halimah et al. (2020), Kuzey & Uyar (2017), Loh et al. (2017), and Sutopo et al. (2018) that concluded sustainability reporting is relevant information to assess companies in mandatory and voluntary contexts.

The Moderating Effect of Managerial Ownership on the Value Relevance of ESG

The running test of the equation model, as shown in Table 3, suggests that MO negatively moderates the value relevance of earnings and equity of sustainability reporting. According to agency theory, management ownership aligns management and principal interest. The higher management ownership in a company, the better the agency problem is addressed, and the more accountable accounting and sustainability are reported. However, this finding shows that Indonesia's shareholders do not appreciate a company's high level of managerial ownership. Higher managerial ownership does not accommodate overlapping interests between principal and management but worsens the asymmetric information, raising the agency problem.

As managerial ownership rises, managers can use their position to emphasize their interest in the company; furthermore, doing so does not benefit the shareholders (Morck et al., 1988; Stulz, 1988). Management discloses certain sustainability reporting information that only benefits the company's interest. A less accountable sustainability report influenced investment decisions and eventually fluctuated market prices. Fahlenbrach & Stulz (2007) argued that management and principal interests can be aligned without managers owning shares. All that must be done is aligning management's compensation plan with the market performance measurement. In doing so, management will gain benefits through the market price increases. This explains why some companies in Indonesia do not accommodate employee ownership plans in their policies but rather emphasize their compensation plan. Moreover, high managerial ownership also risks insider transactions to the shareholder.

However, the relationship between managerial ownership and firm value is not linear. The study conducted by McConnell & Servaes (1990) concluded that Tobin's Q (firm value) changes differently between levels of director ownership. Tobin's Q increases for director ownership levels between 0-5 percent and above 25 percent but decreases for director ownership levels between 5-25 percent. Furthermore, Hermalin & Weisbach (1991) found Tobin's Q and managerial positively related for ownership levels between 0-1 percent and between 5-20 percent but negatively related for ownership levels between 1-5 percent and above 20 percent. Further research is needed to find the relationship between the different levels of managerial ownership and firm value in Indonesia to understand better the public views on managerial ownership in companies listed in the Indonesian stock market.

CONCLUSION

This study uses the price model to investigate the value relevance association of sustainability reporting and the moderation effect of managerial ownership on the value relevance association. We employ a company listed in the IDX80 index in 2022 as our sample to represent the mandatory sustainability period in Indonesia. The results show that sustainability reporting positively correlates with relevance to earnings and equity value. Investors use earnings and equity performance information to decide Whether to invest, which ultimately fluctuates the company's stock price. The association between agency problems within the company does not align the principal and agent interests but worsens the asymmetric information, raising the agency problem instead. As managerial ownership rises, managers can use their position to emphasize their interest in the company further, even when doing so does not benefit the shareholders. This explains why Indonesia's shareholders do not appreciate a high level of managerial ownership within a company and why some companies in Indonesia do not accommodate employee ownership plans in their policies. Moreover, high managerial ownership also poses the risk of insider transactions to the shareholder.

This study was conducted not without limitations. First, this study takes a sample of companies listed in the IDX80 index for 2022. Future research can extend the time interval and increase the sample taken better to see the impact of mandatory sustainability reporting in Indonesia. The longer the interval and the sample is taken, the better the accuracy of the findings because it reduces data fluctuations due to external factors. The year 2022 chosen as the time interval also implies that this study only focuses on the mandatory period of sustainability reporting in Indonesia. Comparative research can be conducted to see the changes in the relevance of sustainability reporting's value during mandatory and voluntary periods before 2019. Third, the study suggests that increased management ownership negatively moderated the value relevance. Future studies can expand the research scope to address this question and better understand how different management ownership levels affect/moderate the value relevance. Future studies can use the returned model, as this study employed the price model. The various models used might result in similar or other results, thus contributing to the literature by giving a more generalized and accurate understanding. The results of this study further suggest that the Indonesian Financial Services Authority (OJK) improves financial policies in the capital market based on the application of sustainability accounting standards that impact the business operations of companies in Indonesia. OJK must also consider adapting the measurement indicators in the ESG score version of CSRHUB in the POJK. The Indonesian Institute of Accountants (IAI) can also use this research as an evaluation material for implementing new sustainability accounting standards related to macroeconomic conditions in Indonesia.

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