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THE BENEFIT OF SUSTAINABLE ENGAGEMENT FOR THE FIRMS: IS IT STILL NEED EARNINGS MANAGEMENT?

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Abstract
The study's goal is to highlight the necessity for comprehensive re-examinations of the sustainability practices of enterprises that benefit from lower cost of capital According to an intriguing research gap uncovered in previous studies, the extent to which a firm's actual profits management efforts are based on the firm's ownership structure may have an impact on the firm's goal to do sustainable business The growing awareness of business sustainability necessitates the inclusion of reliable, transparent, accurate, and, most importantly, relevant financial and non-financial information, including corporate social responsibility (CSR) and environmental, social, and governance (ESG) performance, in their reporting The research will investigate into the relationship between sustainable practice and the cost of capital, with earnings management serving as a moderating variable consist of 41 state-owned enterprises (SOEs) and private corporations registered on the Indonesia Stock Exchange (IDX) that utilizes the GLS random effect of the regression.. Findings show that sustainable engagement in Indonesian firms has significant relation to the cost of capital but earnings management is not related to moderating variables' role between them.

Keywords: Sustainability, Cost of Capital, Earnings Management, SOEs, Private Companies.

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INTRODUCTION

Economic Cooperation and Development (OECD) stated that Covid-19 has had a significant Firms concerned about corporate sustainability practices because they affect performance diversity and stakeholder value development. As sustainability increases, organizations must report their ESG performance to shareholders, investors, and society. The current integrated reports combine financial and sustainability disclosure. ESG components measure sustainable practices and capital structure objectives. The financial capital structure mediates risk mitigation from ESG initiatives, lowering business risk indirectly (Cantino, Valter Devalle & Fiandrino, 2017). Long-term ESG and financial performance improve when realized. Sustainability was an optional consideration for corporate capital budgeting submissions, and decision-makers had to use a mix of management accounting and finance technology to assess its relevance (Frost & Rooney, 2021). Sustainable organizations have a better average cash cycle, allowing for better cash optimization. Barros et al. 2021). However, it does not affect the likelihood that sustainable firms are always preferred over non-sustainable firms, and there is little evidence that customers' perception of firms as "green" affects the possibility of a formal sustainability program or capital investment decisions (Meyer & Kiymaz, 2015). Previous research is currently debating whether sustainable practices affect capital costs. Although many studies, such as El Ghoul et al., (2011); Ng & Rezaee, (2012) find that firms with higher corporate social responsibility (CSR) scores have a significantly lower cost of equity capital, limited research analysis from the point of how they manage earnings without disturbing the benefit of sustainable practice on capital cost. While prior research has mixed results emphasizes the importance of sustainable corporate disclosure for firms' valuation and cost of capital, when the current study with Menz (2010) and Federica et al., (2017) suggest positive relationships, other studies such as Sharfman & Fernando (2008) and Gonçalves et al., 2022) mentioned negative relationships between CSR disclosure and the cost of capital. We assumed that earnings management could be the factor that moderates the linkage variable between them, making the possibility of the gap and different results possible.

This research describes the main linking factors between sustainable practice and the cost of capital to optimize earnings management. The study also investigates the managed earnings behavior on the initial cost of capital and the possible action of the firms in private and state-owned companies makes income smoothing for the positive outcomes to mitigate the asymmetric information problems or instead make garbling and exhibit the higher cost of debt capital.

According to the current research, the prevailing argument suggests that the correlation between sustainability practices and the cost of capital and managed earnings behavior necessitates heightened stakeholder monitoring to assess a firm's worth accurately (Buertey et al., 2020). Hence, the primary inquiry of this study is "What is the relationship between sustainability practices and the cost of capital in Indonesia?" This primary research question is further reinforced by subsidiary inquiries: (1) What is the correlation between sustainability and the financial capital structure? (2) What is the substance of the concept that facilitates earnings management intending to reduce the cost of capital? (3) Is there a difference between earning management’s moderation between SOE’s and private companies? The present study employs quantitative methodology, specifically random effect regression and the basis related to stakeholder theory to address the research question. The underlying premise is that a negative correlation exists between sustainability measures and the cost of financing. The study's findings should be interpreted within the limitations of its observations and conclusions, which may not provide a comprehensive understanding of the organizational context due to the omission of other areas where accounting and sustainability intersect.

The topics are quite interesting for several reasons and implications for possible research contributions. From the perspective of professionals in the accounting and audit field, it is important to consider the potential detection and awareness of firms engaging in fraudulent practices related to their financial stability. This highlights the significance of accurate reporting, as misleading information can have negative consequences for investors and other stakeholders. The findings of this study have contributed to the existing body of knowledge by highlighting the extensive scope of the cost of capital. Furthermore, the study suggests that there may be clear delineations between ESG sustainability and equity financing.

The organizations of the paper in this following order: The next section below reviews the underlying theories and the relevant literature to develops the research hypothesis. Next, the section is explaining research methodology from the sample, data gathered, proxy and the empirical research models employed. In the end, the final section provides the results and discussion, summary, implication also the possible future research.

LITTERATURE REVIEW

The ability of a company's financial structure to support its decision to optimize its value and overall performance has become correlated with its strategy, management tools, and evaluation, focusing on financial aspects. Much prior research provides interesting insight from their findings. Regarding the cost of capital, companies that disclose more sustainability data typically do so at a cheaper cost due to risk management, reduced information asymmetry, and transparent reporting made available by sustainability reports to the right investors and speculators (Shad et al., 2020). The decision to adopt a capital structure is typically influenced by the factors listed below: the organization's unique characteristics, asset structures, growth potential, non- debt tax shield, and country-specific interest rates of the countries where the firm conducts business (Ramli et al., 2019). Other variables, such as politically connected boards, persuade investors and creditors that the firms benefit from cheaper debt and equity capital costs, making it less risky (Joni et al., 2020). Related to the project, capital budgeting methodologies used in the firms are the main first critical point. The NPV approach is the most used in many firms in Indonesia. According to Baur & Lagoarde-Segot, (2016), NPV may drive investors to reject initiatives that require a longer investment horizon if they have capital constraints. In this circumstance, theoretically sustainable ventures may regularly lose out to more profitable projects. Assessing the risk may lead to a better appraisal for firms to balance the use of sustainable projects. Furthermore, in order to include sustainability, non-financial knowledge and evaluation criteria must be incorporated into cost of capital processes (Frost & Rooney, 2021).

The concept of stakeholder theory emerged in the late 20th century as a response to the growing awareness of the impacts of business activities on the environment and society One of the critical components of stakeholder theory is mapping and engaging stakeholders effectively. Sustainability reporting is closely linked to stakeholder theory, as it emphasizes a company's responsibility to consider the interests of all stakeholders. In this context, it is essential to note that the one of core elements for stakeholder theory is not the company itself but the relationships between an organization and its stakeholders (Hörisch et al., 2014). Furthermore, there is no significant difference for the disclosure of most of the stakeholders among different industries (Şener et al., 2016). An interesting study found by Harmoni (2013) regarding stakeholder-based analysis of sustainability reporting that in each sustainability report are made, each company presents the results of its own analysis of its key stakeholders. Every company's sustainability report includes a stakeholder analysis and its results. Contemporary society views corporations as interconnected entities in a network of interactions involving numerous stakeholders with vested interests in their operation.

Previous Studies and Hypothesis Development

The Linkage between Sustainability Reporting and The Cost of Capital

The strong correlation between the dimensions of ESG sustainability and its integrated and interactive relationship with the cost of equity capital is significant to underline because of its role in linking a company's ESG sustainability with investors and executives believe that ESG performance is a critical factor in business success through financial and non-financial information presented. Sustainability performance and disclosure are essential in assessing the investor's risk premium and return. Each of the ESG components creates a cost- benefit implication for shareholders that automatically affect the cost of equity capital of the firms (Ng & Rezaee, 2015). Since much-extant research also stated the same findings mentioned the significant negative effect between sustainability and cost of capital, the reason behind it is information asymmetry and cost of capital decrease significantly in firms that promote more corporate reporting projects, as they increase the accuracy of investor information and share price informativeness, makes the cost of capital is influenced both by

the information asymmetries and the corporate disclosure itself (Martínez-Ferrero & García-Sánchez, 2017). This leads us to my first hypothesis.

Hypothesis 1: There is negative relationship between sustainability practices and the cost of capital

Moderating Role of Earnings Management on Sustainability Practices and The Cost of Capital

A firm's propensity to manage earnings depends upon its proximity to stakeholders and their interest to maximize shareholder wealth. The literature on earnings management circumstances distinguishes two standard methods of managing earnings: (1) The accrual and (2) The real-activities approaches. Real-activities or direct earnings management involves the timeliness of investments, sales, expenditures, and financing decisions. Accruals earnings management involves discretionary accounting of decisions and consequences already achieved (Ujah & Okafor, 2020). Income smoothing is a method of managing earnings that has survived the test of time. The cost of debt capital is significantly influenced by income smoothing, with higher income smoothing firms displaying a lower contemporaneous cost of borrowed capital (Li & Richie, 2016). That viewpoint assumes that the concept of income smoothing is an information-signaling mechanism that influences the cost of capital. According to Gray et al., (2009) investigation of the complementary relationship between voluntary disclosure and earnings quality, the cost of capital effect for voluntary disclosure is greatly reduced or completely disappears when we condition on earnings quality. These findings show how earnings quality influences sustainability disclosure decisions and perceived outcomes.

Hypothesis 2: Earning management will significantly moderate the relationship between sustainability practices and the cost of capital

Despite an increase in a company's risk, capital owners expect substantial rewards. When wages vary so much, forecasting future earnings becomes impossible. As a result, we might argue that smoothed profits are regarded as less risky than highly fluctuating incomes. Managers have an incentive to manage their profitability in order to keep a firm's risk profile from rising (Balvers, 2009). These requirements would reduce the risk profile and increase earnings.

Furthermore, organizations that invest more in CSR programs are more inclined to invest in earning management to optimize profits. Managers can pursue personal benefits at the expense of stakeholders due to knowledge asymmetry between them and stakeholders (Buertey et al., 2020). The division of ownership and control generates an agency problem between managers as agents) and shareholders as principals, where management, in the context of rational human beings, is subject to prioritizing their own interests over those of shareholders in decision-making. With a focus on ownership concentration, past work investigates the impact of ownership structures as the corporate governance level on the firms' cost of capital. According to Huo et al., (2021), ownership reduces the negative relationship between institutional investors and the cost of capital. Furthermore, enterprises with higher government ownership, or SOEs, have lower loan costs and lower equity financing costs when compared to the benchmark group (Deslandes, 2020; Le, 2020).

Hypothesis 3: The influence of earning management in reducing the cost of capital is lower in publicly controlled companies (state-owned enterprises) than in privately managed companies.

METHOD

Samples and Data Sources

The financial statistics and proxies are obtained from public data in each company's annual report and website. The original population with enterprises listed on the Indonesia Stock Exchange (IDX) for a two-year sample period, before and during the pandemic Covid-19 scenario (2019-2020), to see the difference in cost of capital and earnings before and during the epidemic. Because the sample consists of enterprises with sustainability issues, this study obtains the firms listed in three indexes (IDX ESG Leaders, ESG Sector Leaders IDX KEHATI, ESG Quality 45 IDX KEHATI), one index with strong liquidity quality (LQ45) per March 2022, and one index MESBUMN. To be included in our sample, a company must have all of the financial statement data, annual report, and sustainability reporting required for computing the research variables. We focus on two categories of firms: private enterprise and state-owned enterprise. Due to different interpretations of accounting variables such as accounting accruals and debt obligations across the sample firms in different industries (Buertey et al., 2020; Grimaldi et al., 2020; Joni et al., 2020; Kim & Sohn, 2013; Le, 2020; Li & Richie, 2016). The samples exclude firms in the financial service industry. Table 1 shows the entities employed in this study, which include 19 state-owned enterprises and 22 private corporations.Quadrant A on the digital leadership variable has attributes such as communicating digital vision with employees or anyone else, implementing the planned digital vision, long-term professional development activities, creating employee learning opportunities digitally, measuring and evaluating the digital performance of oneself and employees, knowledge and understanding in using technology, collaborating with anyone according to the company's digitalization goals, establishing a new organizational structure, use of new technology to create innovation and reduce labor producer

Table 1. Sample of the firm

No	Company Name	Industry	Sector	Stock Code
1	Ace Hardware Indonesia Tbk.	Specialty Retail	Consumer Cyclicals	ACES
2	Adhi Karya (Persero) Tbk	Real Estate Management	Properties & Real Estate	ADHI
3	Adaro Energy Indonesia Tbk.	Coal	Energy	ADRO
4	AKR Corporindo Tbk.	Oil and Gas	Energy	AKRA
5	Sumber Alfaria Trijaya Tbk.	Food & Staples Retail	Consumer Non-Cyclicals	AMRT
6	Aneka Tambang Tbk.	Metals and Minerals	Basic Materials	ANTM
7	Astra International Tbk.	Multi-sector Holdings	Industrials	ASII
8	Alam Sutera Realty Tbk	Real Estate Management	Properties & Real Estate	ASRI
9	Barito Pacific Tbk.	Chemicals	Basic Materials	BRPT
10	Charoen Pokphand Indonesia Tbk	Agricultural Products	Consumer Non-Cyclicals	CPIN
11	Elnusa Tbk.	Oil, Gas & Coal	Energy	ELSA
12	XL Axiata Tbk.	Telecommunication	Infrastructure	EXCL
13	Vale Indonesia Tbk.	Metals & Minerals	Basic Minerals	INCO
14	Indah Kiat Pulp & Paper Tbk.	Forestry & Paper	Basic Materials	INKP
15	Indocement Tunggal Prakarsa Tbk.	Construction Materials	Basic Materials	INTP
16	Indonesia Kendaraan Terminal Tbk.	Transport Infrastructure Operator	Infrastructures	IPCC
17	Indo Tambangraya Megah Tbk.	Coal	Energy	ITMG
18	Japfa Comfeed Indonesia Tbk.	Agricultural Products	Consumer Non-Cyclicals	JPFA
19	Jasa Marga (Persero) Tbk.	Transport Infrastructure Operator	Infrastructures	JSMR
20	Kimia Farma Tbk.	Pharmaceuticals	Healthcare	KAEF

21	Kalbe Farma Tbk.	Pharmaceuticals	Healthcare	KLBF
22	Merdeka Copper Gold Tbk.	Metals & Minerals	Basic Materials	MDKA
23	Medco Energi Internasional Tbk.	Oil & Gas	Energy	MEDC
24	Dayamitra Telekomunikasi Tbk	Telecommunication Service	Infrastructure	MTEL
25	Perusahaan Gas Negara Tbk.	Oil & Gas	Energy	PGAS
26	PP Presisi Tbk	Heavy Constructions& Civil Engineering	Infrastructure	PPRE
27	Bukit Asam Tbk.	Coal	Energy	PTBA
28	PP (Persero) Tbk	Heavy Constructions & Civil Engineering	Infrastructure	PTPP
29	Industri Jamu dan Farmasi Sido Muncul Tbk.	Pharmaceuticals	Healthcare	SIDO
30	Semen Baturaja (Persero) Tbk	Construction Materials	Basic Materials	SMBR
31	Semen Indonesia (Persero) Tbk.	Construction Materials	Basic Materials	SMGR
32	Timah Tbk.	Metals & Minerals	Basic Materials	TINS
33	Telkom Indonesia (Persero) Tbk.	Telecommunication Service	Infrastructures	TLKM
34	Sarana Menara Nusantara Tbk.	Wireless Telecommunication Services	Infrastructures	TOWR
35	Chandra Asri Petrochemical Tbk.	Chemicals	Basic Materials	TPIA
36	United Tractors Tbk.	Machinery	Industrial	UNTR
37	Unilever Indonesia Tbk.	Personal Care Products	Consumer Non-Cyclicals	UNVR
38	Wijaya Karya Bangunan Gedung Tbk.	Heavy Constructions & Civil Engineering	Infrastructure	WEGE
39	Wijaya Karya (Persero) Tbk.	Heavy Constructions & Civil Engineering	Infrastructure	WIKA
40	Waskita Karya (Persero) Tbk.	Heavy Constructions & Civil Engineering	Infrastructure	WSKT
41	Wijaya Karya Beton Tbk.	Construction Materials	Basic Materials	WTON

Source: IDX website

Measuring Sustainability Practices

Sustainability reporting accurately measures how organizations apply sustainability. Because a company's environmental and social performance affects its owners' utility, managers are obligated to thoroughly monitor and present environmental and social performance to investors alongside financial data. The performance of the company is evaluated by taking into account the sustainable activities carried out by the subsidiaries and the parent company. The data for this report is updated on a regular basis, and the organization generally adheres to the GRI Standards in its creation. In Indonesia, they are required to create a sustainability report in accordance with Financial Services Authority No.51/POJK.03/2017. According to Martínez-Ferrero & García-Sánchez (2017), we may establish the extent to which this information is complete, comparable, and harmonized by comparing the information contained in such reports with the recommendations of GRI standards. According to circular letter SEOJK.04/2020, the Sustainability Report can be prepared individually or as part of the annual report. Sustainability reporting is evaluated in conversion to an ordinal scale ranging from 0 to 100, developed from Martínez-Ferrero & García-Sánchez (2017)'s measurement. Based on requirements and information from the GRI guidelines (version 3), the values are divided into five groups, with the assessment criteria indicated in the table below. Companies who do not produce sustainability reporting will be omitted from the sample.

SR Values	Type of Sustainability Report
SR = 0	Firms which do not create sustainability reporting
SR = 25	Firms which create sustainability reporting but does not comply with GRI guidelines
SR = 50	Firms which create sustainability reporting following the C level of the GRI guidelines, which their reportsare very basic. More specifically, the report including information on: Profile Disclosures: statement numbers 1.1; 2.1–2.10; 3.1–3.8; 3.10–3.12; 4.1–4.4; 4.14–4.15. Disclosures on management approach: not required. Performance indicators and sector supplement performance indicators: a minimum of any 10 performance indicators, including at least one from each of the social, economic, and environment categories. Performance indicators may be selected from any finalized sector supplement, but 7 of the 10 must be from the original GRI guidelines.
SR = 75	Firms which create sustainability reporting following the B level of the GRI guidelines, that is, their reports are complete. Specifically, the report contains information on: Profile Disclosures: statement numbers 1.1; 1.2; 2.1–2.10; 3.1–3.13; 4.1–4. Disclosures on management approach: for each indicator category. Performance indicators and sector supplement performance indicators: a minimum of any 20 performance indicators, including at least one from each of the economic, environment, human rights, labour, society, and product responsibility categories. Performance indicators may be selected from any finalized sector supplement, but 14 of the 20 must be from the original GRI guidelines
SR = 100	Firms which create sustainability reporting following the A level of the GRI guidelines, that is, their reports are very advanced. More specifically, the report incorporates information on: Profile Disclosures: 1.1; 1.2; 2.1–2.10; 3.1–3.13; 4.1–4.17. Disclosures on management approach: for each indicator category. Performance indicators and sector supplement performance indicators: incorporates each core and sector supplement indicator.

Table 2. Sustainability Reporting Score Source: The authors, adapted from Garcia-Sanchez et al (2017)

Measuring Cost of Capital

According to a previous study, two types of measures are now used to estimate cost of capital models: the earlier estimation model based on analyst forecasted earnings data and the latter estimation model based on realized earnings rather than expected earnings. The implied cost of capital assesses the cost of capital by using projected data rather than previous data. To determine the cost of the capital variable, I utilize the implied cost of capital approach in conjunction with the OJ model. Ohlson and Juettner-Nauroth (2015) pioneered the OJ model, which connects stock price, expected earnings, and expected earnings growth. According to Huo et al., (2021), the computation of the cost of capital is more accurate with this model, which is made possible by advances from earlier traditional models such as price earning to the growth model. The models illustrated by the equations below:

$$R = A + \sqrt{A^2 + eps_1(g_2 - g_p) \,/\, P_O} \ldots . (1)$$

$$A = \frac{1}{2}\left(g_p + \frac{dps_1}{P_O}\right), g_2 = \ (eps_2 - eps_1)/\ eps_1 \ \ldots (2)$$

Where R expressed the cost of capital; PO : the opening price of stock a year; $dps1$ expressed the dividend per share; $eps1$ expressed the current earnings pershare; $eps2$ expressed the earnings per share for the next year.

Researchers employ two types of proxies for estimation in company earnings management: real earning and accrual earning management, based on the technique of Campa and Camacho-Miano (2015). These proxies for real earnings management stress the manipulation of sales and production costs as the primary contributing variables to a company's annual report. The abnormal cash flow and production are calculated using the following equations:

$$\frac{CFO}{Assets_{t-1}} = \propto + \beta_1\left(\frac{1}{Asset_{t-1}}\right) + \beta_2\left(\frac{Sales}{Asset_{t-1}}\right) + \beta_3\left(\frac{\Delta Sales}{Asset_{t-1}}\right) + \in_t \ldots . (3)$$

$$\frac{Prod}{Assets_{t-1}} = \propto + \beta_1\left(\frac{1}{Asset_{t-1}}\right) + \beta_2\left(\frac{Sales}{Asset_{t-1}}\right) + \beta_3\left(\frac{\Delta Sales}{Asset_{t-1}}\right) + \beta_4\left(\frac{\Delta Sales_{t-1}}{Asset_{t-1}}\right) + \in_t \ldots (4)$$

Where: CFO is cash flow from operations (calculated as EBIT + depreciation and amortization, +/- changes in inventories, changes in trade and other receivables and changes in trade and other payables); PROD is cost of goods sold plus change in inventory.

For accrual earnings management proxy, the abnormal working capital accruals is estimated following this equation:

$$AWCA = WC - WC_{t-1}/S_{t-1}) \times S_t$$

Where: WC is operating working capital (calculated as value of current assets minus cash and cash equivalent, less current liabilities net of the current portion of long-term debt; S expressed as net sales.

Measuring Control Variables

In this investigation, we identified the control variables using three key components that have been shown to identify the effects of our variables. The determinants include company size, profitability, and leverage Because both the state-owned enterprise and private enterprise can be classified as structural ownership, firm size as the representative of firm characteristics is proxied by total book assets. The return on asset (ROA) and total debt to total assets (DAR) ratios serve as proxies for profitability and leverage.

Research Model

The study is carried out utilizing regressions with a random effect of generalized least squares (GLS). Nachrowi et al. (2006) were used to guide the selection of the random effects model. They assert that econometricians have determined that utilizing Random Effect Models is recommended if the panel data has a shorter time period (T) than the total number of individuals (N). To address Hypotheses 3 and 4, we divided the sample into two subgroups: private enterprises and public (state-owned) companies and developed a panel model for each of them. The following are the model specifications and planning:

Model 1: Explains the relationship between sustainable practices (SP) and cost of capital (CC)

$$CC_{it} = \alpha_0 + \lambda_1 SP_{it} + \Sigma\lambda_i CONTROLS_{it} + \Sigma AUD + \varepsilon_t \quad (1)$$

Model 2: Examines the moderating effect of earning management (EM) on SP-CC relationship

$$CC_{it} = \alpha_0 + \lambda_1 SP * EM_{it} + \Sigma\lambda_2 SP_{it} + \Sigma\lambda_3 EM_{it} + \Sigma\lambda_i CONTROLS_{it} + \Sigma AUD + \varepsilon_{it} \quad (2)$$

In addition, the random-effect regression models included audit (AUD) dummies (1 for the reporting is audited by Big 4, and 0 if not) and ownership (1 for state-owned enterprise, and 0 if not)

RESULT AND DISCUSSION

Descriptive Statistics

Results for overall descriptive statistics, including variables including independent, dependent, moderating and control variables. The mean value of cost of capital expressed with R, is 0.136%, ranging from 0 to 0.737%. We can say that the average level of cost of capital in SOEs and private firms in Indonesia is still low.

Table 3. Descriptive Statistics

	N	Mean	Median	St.Dev	Min	Max
R	82	0.136	0.072	0.150	0.000	0.737
SR	82	61.890	75	26.124	0.000	100
CFO	82	2.180	1.607	1.798	0.127	9.872
PROD	82	2.382	1.749	1.989	-0.031	10.597
AWCA	82	-62549.41	29.183	1890	-1533	7261
FIRM	82	10.332	10.222	1.312	6.395	13.659
LEV	82	3.139	0.410	12.456	0.000	73.810
PROFIT	82	4.988	3.245	7.255	-8.990	36.100
AUD	82	0.756	1	0.432	0.000	1.000
OWNERSHIP	82	0.439	0	0.499	0.000	1.000

However, the sustainability reporting, or SR, has a mean value of 61.89%, meaning that enterprises publish information on their reporting in accordance with at least the C level of GRI guidelines and that half of the samples of the firm have a score over 50. The typical values of the earning management proxies indicated with CFO, PROD, and AWCA are 2.18%, 2.3%, and -62549.41, respectively. We can highlight that working capital has a negative mean, which suggests that private and state-owned enterprise firms do not have any working capital even negative in 2019-2020. This means that earning management proxies from between cash flow operation and production cost have a slightly same assessment and both in the same range.

The first control variable, the firm, which measures firm size, has a mean value of 10.332%, almost identical to the median (10.22%), showing that the state-owned and privately-owned enterprises with sustainability concerns have around the same firm size. While return on assets is characterized by profitability and the debt to asset ratio is indicated with leverage, in contrast to company size, both have mean values that fluctuate across the range. One aspect that stands out is that certain firms experienced losses over the study's relevant time since the firm's profitability has negative minimum values. The control dummy variables audit and ownership have a different median (audit is 1, ownership is 0), showing that most of the firms have had their financial statements audited by a Big 4 accounting firm and fewer SOEs companies who are featured in an index with sustainability concerns.

Table 4. Correlative Matrix

	R	SR	CFO_A	PROD_A	AWCA	FIRM	LEV	PROFIT	AUD	OWNER
R	1.000									
SR	0.254	1.000								
CFO_A	-0.14*	0.039**	1.000							
PROD_A	-0.17*	0.021**	0.980	1.000						
AWCA	0.023**	-0.06*	0.018**	0.026**	1.000					
FIRM	0.092*	0.431	-0.281*	-0.306*	-0.07*	1.000				
LEV	-0.078*	0.078	-0.094*	-0.093*	0.005**	0.111	1.000			
PROFIT	-0.301*	0.018	0.451	0.434	0.019**	-0.1*	-0.08*	1.000		
AUD	0.069*	-0.013*	0.215	0.208	0.096*	0.056**	-0.21*	0.157	1.000	
OWNER	0.008**	-0.12*	-0.198*	-0.155*	-0.15*	-0.11*	0.238	-0.26*	-0.18*	1.000

** p <0.1 **p<0.01*

Table 4 displays the Pearson correlation results for all variables. As we can see, the results show a significant connection between all variables, including the control variables. The surprising finding is that sustainability reporting has no significant detrimental association. This study shows that firms are only now beginning to exhibit their sustainability values; therefore, their performance thus far could have been better. According to the content analysis used to determine the sustainability reporting score, the economic component of the ESG component has the fewest performance achievements. It is also worth noting that every profits management variable has a significant drawback. This demonstrates that earnings management will be smaller when the cost of capital rises. We can also find that AWCA had the highest association to measure earning management among cash flow operation manipulation, production manipulation, and irregular working capital. Table 4 also shows that organizations with higher sustainability reporting allow enterprises to function with lower working capital investments, consistent with Barros et al. (2021) findings. Positive significance is likewise evident in the control variable, except leverage and profitability, which makes sense because when the cost of capital rises, the firms' profitability and leverage fall.

Several tests were run on the data before multivariate analysis to make sure it was accurate and to choose the best model. The GLS technique in random effects has the advantage of overcoming the time series autocorrelation and the correlation between cross-sectional observations, thus we don't need to perform an assumption test even though the model is a random effect (Kosmaryati et al., 2019). In addition, GLS generates an estimator that satisfies the best linear unbiased estimation (BLUE) as well as a remedy for violations of the homoscedasticity and autocorrelation assumptions. This study used GLS's random effect analysis for multivariate analysis.

Table 5.
Random effects GLS regression: Relationship of Cost of Capital to SR

	Coefficient	Std. Error	Prob
Constanta	0.178	0.120	0.1410
SR	0.001	0.000	0.0025
FIRM	-0.013	0.012	0.2656
PROFIT	-0.008	0.002	0.0001
LEV	-0.001	0.001	0.3177
AUD	0.043	0.034	0.2170
R-squared			0.1969
Adj r-squared			0.1444
Observations			82

The multivariate analysis specifically considered the implications of the association between sustainability reporting and cost of capital in order to test the first hypothesis. Table 5 demonstrates that there is a strong correlation between cost of capital and sustainability reporting, but what is unexpected is that the significant results are marked in a positive direction, rejecting the first hypothesis of the study. This result contrasts with earlier studies' findings that overall ESG practices were adversely correlated with Latin American enterprises' cost of capital and the Fama-French industry group's cost of capital (Ramirez et al., 2022; Ng, A. C.; & Rezaee, Z., 2015). The different findings show that businesses in Indonesia that implement important sustainability practices suffer high capital costs. Even if the sample in this study includes businesses with high ESG quality, the usage of this sustainability report in businesses for decision- making is less useful. Companies in Indonesia are anticipated to adopt more sustainable practices in the future compared to other developing nations so that the advantages of using sustainable practices to lower the cost of capital can be fully achieved.

	Coef	Std. Error	Prob
Constanta	0.262	0.134	0.055
SR	0.002	0.001	0.033
FIRM	-0.024	0.013	0.089
PROFIT	-0.008	0.002	0.000
LEV	-0.001	0.001	0.331
AUD	0.054	0.038	0.161
CFO_A	0.210	0.155	0.179
PROD_A	-0.182	0.137	0.188
AWCA	3.93	5.35	0.941
SR*CFO_A	-0.001	0.002	0.401
SR*PROD_A	0.001	0.001	0.470
SR*AWCA	-3.28	7.54	0.965
R-squared			0.260
Adj r-squared			0.144
Observations			82

Table 6. Random effects GLS regression: Moderating of Earning Management to Cost of Capital

Earnings management has not been shown to significantly influence the relationship between the cost of capital and sustainable practices, according to hypothesis 2 in the literature review section, as evidenced by the regression data in Table 6. Earnings management, on the other hand, has a moderating nature and a negative relationship direction (on abnormal working capital and abnormal cash flow) to the cost of capital, indicating that the board's ability to supervise and avoid the adoption of earning management practices is influenced slightly by the level of ESG policies provided by corporations. According to this information, organizations more committed to sustainability are less likely to advance earning management methods. Given that the primary goal of our study is to determine whether earnings management moderated the relationship between the firm's sustainability engagement and the cost of capital, Grimaldi et al.'s (2020) findings are consistent with this analysis, implying that, while the coefficient is not statistically significant, it is of fundamental significance.

Panel A: State-Owned Enterprise				Panel B: Private Enterprise			
	Coef	Std. Error	Prob		Coef	Std. Error	Prob
Constanta	0.192	0.287	0.510		0.223	0.227	0.329
SR	0.003	0.002	0.102		0.003	0.001	0.128
FIRM	-0.026	0.025	0.311		-0.021	0.023	0.366
PROFIT	-0.018	0.005	0.002		-0.006	0.003	0.055
LEV	-0.000	0.001	0.579		-0.006	0.027	0.815
AUD	0.161	0.073	0.039		0.026	0.061	0.668
CFO_A	0.304	0.402	0.457		0.303	0.353	0.396
PROD_A	-0.245	0.310	0.437		-0.263	0.325	0.424
AWCA	-1.69	1.4	0.263		3.29	3.53	0.358
SR*CFO_A	-0.004	0.005	0.465		-0.002	0.005	0.565
SR*PROD_A	0.002	0.004	0.507		0.002	0.004	0.632
SR*AWCA	2.25	1.96	0.263		-6.5	7.01	0.357
Adj r-squared			0.187				0.250
GLS			Random				Random
Observations			34				48

Table 7. Random effects GLS regression: The Influence of Earning Management Moderation in SOEs vs Private companies

Referring to panel A in Table 7, the moderating variables for the earnings management start with abnormal cash flow, abnormal production costs, and abnormal working capital, which are all insignificant. The coefficient of SR*CFO_A, however, is negative but positive for SR*PROD_A, $p > 0.05$, and SR*AWCA, $p > 0.05$, indicating that earning management activity in the state-owned enterprise does not result in a reduced cost of capital for the enterprises. The control variable results in panel A stated above reveal that profitability and the cost of capital have a considerably inverse relationship, whereas audits and the cost of capital have a significantly positive relationship.

According to the Panel B results in Table 7, there is no association between the overall variables and the moderating variables of earnings management. The findings in private enterprises show a negative correlation between SR and CFO_A and SR and AWCA in comparison to Panel A. Only profitability, firm size, and leverage are marginally significant for the control variables in panel B and have a negative relationship with the cost of capital. Overall, we can see that from the value of the influence of earning management in reducing the cost of capital are lower in private companies than in state-owned enterprise. Another important finding, between three proxies, abnormal working capital can detect larger in earning management practices rather than abnormal cash flow and production cost.

Finally, the findings reveal that more extensive sustainability reporting reduces funding costs, but not in a depressing way, which contradicts Hypothesis 1. Contrary to Hypothesis 2, there is no statistically significant relationship between sustainability reporting and the cost of capital with earning management as a moderator. Hypothesis 3 was also disproved (SOEs), which claimed that private businesses are less likely than public ones to profit from earning management's capacity to cut the cost of capital. Unfortunately, they have little influence on each other. The findings show that, depending on the element of transparency, transparency is either irrelevant or detrimental to the quality of SOE financial accountability.

CONCLUSION

Prior studies, such as those conducted by Botosan and Plumlee (2001), Garca-Sánchez, I. M., and Noguera-Gámez, L. (2017), Gianfrate et al. (2018), and Shad et al. (2020), hypothesized that sustainability reporting is a value-adding activity, implying that it is beneficial to positively associated with firm performance and, in general, supportive of a negative relationship between the cost of capital. This research investigates whether the influence of sustainability reporting on the cost of capital is moderated by earning management. I provide evidence that sustainability reporting significantly reduces the cost of capital with a positive tone using a sample of 41 publicly traded SOEs and private enterprises in Indonesia from 2019 to 2020. The findings are explained by the fact that the cost of capital in Indonesian firms increases for rapid sustainability disclosures while lowering for yearly report disclosure levels (Botosan and Plumlee, 2002). The findings of this study diverge from the majority of previous work in that firms that reveal more sustainability information are more likely to change to lower the cost of capital. In contrast, Indonesian enterprises continue to face higher costs that must be balanced with sustainable practices and competitive strategies in order to achieve maximum profitability. These findings are consistent with Goncalves et al.'s (2022) discovery of a positive relationship between sustainability performance and the cost of capital in European enterprises listed on the STOXX Euro 600 index.

Furthermore, we discover that earnings management is unrelated to the role of moderating variables in the relationship between sustainability disclosure and the cost of capital. As one of the earnings management proxies, abnormal working capital had the highest utility in detecting earnings management activities. At the same time, because of the critical relationship, additional audits in the top four can provide prevention to such activities. Earnings management has no relationship to the cost of capital as a moderating variable, which this link may explain by being driven mainly through optimism in analysts' long-term profits estimates, which are systematically too high for firms with volatile earnings (McInnis, 2010). The key finding of this paper is that corporate sustainability reporting does have a significant relationship with the cost of capital. Despite the positive tone, the results have practical implications.

First, this should demonstrate to managers who are contemplating the possibilities of sustainability reporting that such concerns are not burdens but rather can improve financial outcomes by lowering the cost of capital to the higher value of the company. Managers should be encouraged to increase their investment in social and environmental sustainability-related activities, such as supply chain, human rights, labor, and society, and not forget the economic aspect because most of the firms that disclose sustainability reporting are minimal in economic aspect disclosure besides ESG components disclosure.

Performance indicators in economic, environmental, social, and governance are not costs but investments that may reduce information asymmetries, leading to lower costs of capital that enhance overall firm performance. Second, firms do not have to consider the potential needs of earnings management practices to lower the cost of capital because sustainability reporting may reduce the cost of capital. We argue that corporate sustainability reporting is crucial for emerging markets such as Indonesia to lower the cost of capital, not liability. Because the absence of legal coercion and strict supervision has negative consequences, obligation applies in the countries whose law and supervision issues. Indonesian companies must find appropriate ways to improve disclosure quality to reduce their cost of capital. Third, the results have implications for stakeholders who traditionally view increasing sustainability reporting as a cost that lowers company value, which companies in Indonesia have not been able to afford.

This work also suggests new directions for future research. We investigated the sustainability reporting procedures of Indonesian publicly traded firms. As ESG becomes a critical component of any corporate strategy, ESG executives will require broader skills to oversee this transformation. Future research should compare sustainability reporting and its implications on capital costs in other countries with those in countries that practice higher levels of sustainability. In addition, using a larger sample size would improve statistical power, reduce the likelihood of error, and find new characteristics of capital cost reduction and sustainability reporting standards. The study focuses on the quantity of sustainability reporting rather than the quality of reporting. It is therefore recommended to consider both the quantity and quality of sustainability reporting for a more accurate assessment and clearer image of sustainability management practices. The research must be repeated to compare the findings from a specific range with the present study on numerous problems from prior years. This study investigated how sustainability reporting primarily affects capital cost reduction and the preferences of the moderating variables. Other financial variables, such as corporate tax planning and derivative products, could be studied..

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