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The Effect of Environmental, Social, & Governance (ESG) Disclosure and Tax Avoidance on Cost of Capital with Firm Size as a Moderating Variable

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KEYWORDS
cost of capital, ESG, tax avoidance, firm size

ABSTRACT
The purpose of this study is to examine the effect of Environmental, Social, and Governance (ESG) disclosure and tax avoidance on the cost of capital, with firm size serving as a moderating variable. The population of this study consists of all companies listed on the Indonesia Stock Exchange (IDX) that have been included in the SRI-KEHATI index at least once, focusing on the 2018-2021 period. The sample was obtained through a purposive sampling method, and a total of 121 companies were included in the analysis. The results of the study show that ESG disclosure has a negative effect on the cost of capital, indicating that companies with better ESG practices can reduce their cost of capital. Conversely, tax avoidance was found to have a positive effect on the cost of capital, suggesting that companies engaging in tax avoidance face higher costs of capital due to the perceived risks or uncertainties related to their tax practices. Additionally, firm size was found to strengthen the relationship between ESG disclosure and tax avoidance on the cost of capital, indicating that larger firms experience more pronounced effects of ESG practices and tax strategies on their capital costs. This research contributes to the understanding of how ESG disclosure and tax strategies influence financing costs, especially for larger firms in the Indonesian market.

INTRODUCTION

The United Nations (UN) on September 25, 2015 through the United Nations Development Program (UNDP) officially inaugurated the Sustainable Development Goals (SDGs) Agenda as a global development agreement. Because of the program, there is increasing pressure on the global community to start efforts to realize the Sustainable Development Goals by 2030 (United Nations, 2015). This allows corporate behavior and decisions towards sustainable development to be an important factor in obtaining support to achieve the SDGs (Jonsdottir et al., 2021). One of the important factors that accompany it is the cost of capital, which requires financing and decision-making strategies that are aligned with sustainability issues (Gholami et al., 2022). Thus, companies seek to establish strategies based on sustainability to reduce their cost of capital.

Companies can achieve lower cost of capital by minimizing information asymmetry between managers and capital providers (Muslim & Setiawan, 2021). This allows capital providers to be able to accurately assess investment risks and determine the expected rate of return on investment (Appuhami, 2018). So that from the perspective of stakeholders, companies are required to be transparent in disclosing relevant information (Firmansyah et al., 2021). The implementation of sustainability practices such as environmental, social, and good governance (ESG) is one of the demands of stakeholders (Yilmaz, 2022). This is very important

to build a good company reputation (Zhao & Lv, 2018). On the other hand, companies that prioritize sustainability activities have shown cheaper cost of capital financing. Therefore, the issue related to the relationship between the implementation of ESG and the cost of capital is very interesting for further study.

Regarding the fact that managers and capital providers need company information to assess investment risk and determine the expected rate of return, investors and creditors will demand a high rate of return if the quality of the accounting information is poor and investors will also estimate the company's risk to be high. So with the poor quality of accounting information, investors and creditors think that reporting company costs can contain efforts for tax avoidance. However, the quality of accounting information is strong, transparent, and the company's supervision system is well operated will have an impact on the cost of capital so that it becomes cheap (Shin & Woo, 2017).

Large companies cannot be separated from political pressure, namely the pressure to carry out social responsibility or the high level of corporate taxes (Sekarwigati & Effendi, 2019). Previous research revealed that the larger the company, the higher the value of ESG disclosures carried out (Roestanto et al., 2022) (Oktaviyani & Mulyana, 2022). On the other hand, company managers can strategize corporate disclosure policies by considering that the benefits of disclosure in reducing capital costs may depend on the size of the company (Gregory, 2022).

This study will use firm size as a moderating variable on the influence of ESG disclosure and tax avoidance on the cost of capital. The researcher will use the object of a company that is listed on the Indonesia Stock Exchange and has been included in the SRI-KEHATI (Sustainable Responsible Investment-KEHATI) index for the 2018-2021 period. The SRI-KEHATI (Sustainable Responsible Investment-KEHATI) index is an indicator or reflection of stock price movements that serves as a guideline for investors on stocks in issuers that have excellent performance in a sustainable manner in carrying out good corporate governance and have awareness of environmental sustainability, empowerment of the surrounding community and continuing to practice ethics in doing business.

Theoretical Foundations and Hypothesis Development

Theoretical Framework

Theory of Legitimacy

The theory of legitimacy was first proposed by (Dowling & Pfeffer, 1975). The theory of elimination provides an overview of the difference between the values embraced by the company and the values of society, since the company will be in a threatening position where the difference is known as the Legitimacy Gap. A legitimacy gap will arise if the company is not sensitive to the impact that may be caused by the company's activities and public expectations of the company and is only oriented towards making profits. ESG disclosure is very beneficial for companies to minimize the legitimacy gap through increased alignment between company operations and public expectations (Abdul Rahman & Alsayegh, 2021).

Agency Theory

Agency theory explains that agency relationships arise when one or more people (principal) hire another person (agent) to provide a service and then delegate decision-making authority to that agency (Meckling & Jensen, 1976).

Agency Theory states that tax avoidance is closely related to corporate governance because of the implications of agency costs. In practice, the complexity and ambiguity of tax avoidance can protect managers involved in various forms such as profit manipulation and insider transactions that reduce after-tax cash flow (Yee et al., 2018). In addition, agency theory postulates that opportunistic managers can reduce tax liabilities through complex transaction arrangements, so they ignore or pursue their own interests, but on the other hand principals want a high rate of return on the resources that have been invested (Khuong et al., 2020).

In general, large companies will disclose more information than small companies. There are several explanations for this. Agency theory states that large companies have greater agency costs than small companies. Large companies may disclose more information in an effort to reduce the cost of the agency. Another possible explanation is that large companies face greater political costs than small companies so there is pressure to take social responsibility or high corporate tax rates (Sekarwigati & Effendi, 2019). On the other hand, company managers can strategize corporate disclosure policies by considering that the benefits of disclosure in reducing capital costs may depend on the size of the company.

Cost of Capital

According to (Van Horne & Wachowicz Jr, 2000) Cost of Equity Capital is the rate of return requested on the investment of a company's common shareholders. There are two sources of company funding, namely equity and debt. So, the cost of capital is a combination of the cost of equity and the cost of debt. The calculation of the overall cost of capital aims to determine capital financing in terms of capital budgeting. This concept leads to the Weighted Average Cost of Capital (WACC), which is the limit for evaluating whether projects have a better rate of return. WACC is a weighted capital cost from various sources of capital according to their respective compositions (Gholami et al., 2022).

Enviromental Social And Governance

ESG has 3 factors that can be broadly described, namely environmental, social, and governance. Environmental factors include the company's relationship with the environment physically, social factors include the company's social impact on society, and governance factors are related to how the company is managed (FSCO, 2016).

Firm Size

The size of a company can be seen from the assets it owns. Larger companies are considered to tend to have better conditions. The size of a company with a large, long-established company will determine the achievement of profitability and stability, easier access to capital markets, and smaller transaction costs when compared to a small, newly established company.

Hypothesis Development

The Effect of ESG on Cost Of Capital

This study uses the theory of legitimacy first proposed by (Dowling & Pfeffer, 1975). The theory of legitimacy provides an overview of the difference between the values embraced by the company and the values of society, then the company will be in a threatened position where the difference is known as the Legitimacy Gap (Safriani & Utomo, 2020).

Previous research has found that companies with better ESG can achieve cheaper capital costs (Gholami et al., 2022). Similar to the findings of (Raimo et al., 2021), (Ould Daoud Ellili, 2020; Yilmaz, 2022) who indicated that when companies perform better in the sustainability pillar, they have a lower risk perception which can result in lower capital costs. Based on the above presentation, the author proposes the following hypothesis:

Hypothesis 1 (H1): Environmental, Social, & Governance (ESG) Disclosure has a negative effect on Cost of Capital

The Effect of Tax Avoidance on Cost Of Capital

Agency theory states that tax avoidance is closely related to corporate governance because of the implications of agency costs. In practice, the complexity and ambiguity of tax avoidance can protect managers involved in various forms such as profit manipulation and insider transactions that reduce after-tax cash flow (Yee et al., 2018). In addition, agency theory postulates that opportunistic managers can reduce tax liabilities through complex transaction arrangements, so that they neglect or pursue their own interests, but on the other hand the principal wants a high rate of return on the resources that have been invested.

This causes creditors to have better access to information than ordinary shareholders in assessing the company's capabilities. Common shareholders who have less access to information will increase the expected rate of return, thereby increasing the cost of equity. This higher rate of return reflects the risk incurred by common shareholders who do not have better information than creditors (e.g., liquidation information) (Yeh et al., 2020).

Tax avoidance causes the company's accounting transparency to be poor and increases the uncertainty of the future income that investors will earn. Companies with a high level of asymmetric information will choose to finance through debt despite increasing their debt ratio. In addition, companies that make tax savings to maximize corporate value will increase the use of debt rather than equity in their funding structure (Firmansyah et al., 2021).

Based on the above presentation, the author proposes the following hypothesis:

Hypothesis 2 (H2): Tax avoidance has a positive effect on the Cost of Capital.

Firm Size Moderates the Effect of Environmental, Social, & Governance (ESG) Disclosure on Cost of Capital

The information used by investors to make decisions cannot be separated from the size of the company (Hardinis, 2019), because the size of the company is a measure of the availability of information. Information disclosure is greatly influenced by the size of the company because large companies tend to have large resources. The resources owned by the company are used to provide information that will be used as material for the purpose of disclosing information to external parties. The disclosure of information presented by large companies tends to be more numerous and extensive compared to the disclosure of information presented by small companies because small companies do not have as many resources as those owned by large companies.

Large companies cannot be separated from political pressure, namely the pressure to carry out social responsibility or the high level of corporate taxes (Sekarwigati & Effendi, 2019). Previous research revealed that the larger the company, the higher the value of ESG disclosures carried out (Gregory, 2022; Oktaviyani & Mulyana, 2022; Roestanto et al., 2022). On the other hand, company managers can strategize corporate disclosure policies by considering that the benefits of disclosure in reducing capital costs depend on the size of the company.

Hypothesis 3 (H3): Firm Size Positively Moderates the Effect of Environmental, Social, & Governance (ESG) Disclosure on Cost of Capital

Firm Size Moderates the Effect of Tax Avoidance on Cost of Capital

Agency Theory says that the difference in interests between the principal and the agent will lead to information asymmetry (Jensen & Meckling, 1979) thus creating a political pressure from external parties to provide relevant information especially to large companies. Putra et al, 2021. If the company's information shows that there are tax avoidance practices either implicitly or explicitly, it can affect the decision of the capital provider regarding the requested capital cost. On the other hand, company managers can strategize corporate disclosure policies by considering that the benefits of disclosure in reducing capital costs may depend on the size of the company.

The size of a company can be seen from the assets it owns. Larger companies are considered to tend to have better conditions. The size of a company with a large, long-established company will determine the achievement of profitability and stability, easier access to capital markets, and smaller transaction costs when compared to a small, newly established company. Based on the above presentation, this study proposes the following hypotheses:

Hypothesis 4 (H4): Firm Size Positively Moderates the Effect of Tax Avoidance on Cost of Capital

Conceptual Restructuring

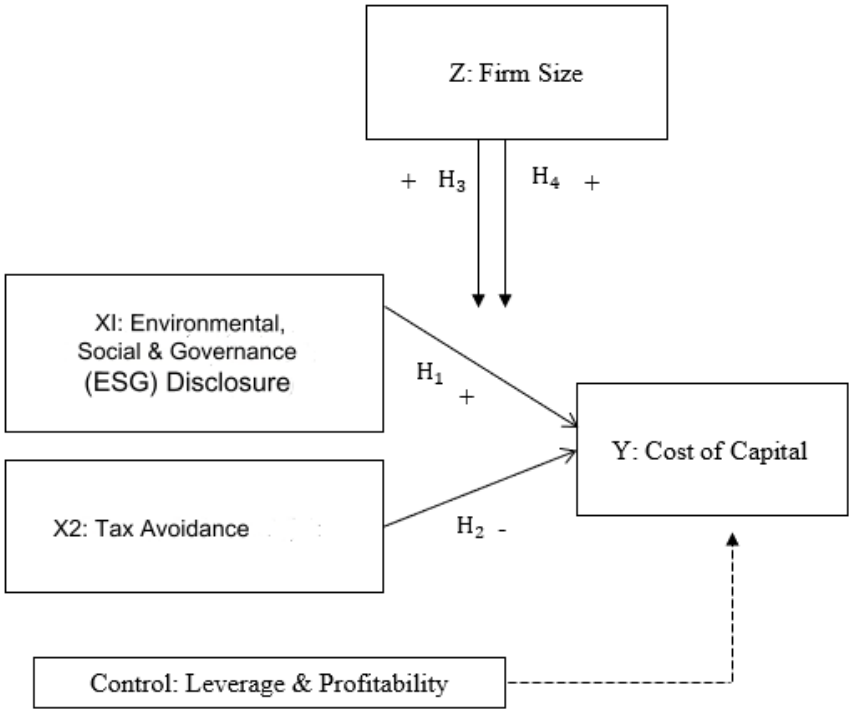

Figure 1. Conceptual Restructuring

The purpose of this study is to investigate the impact of Environmental, Social, and Governance (ESG) disclosure and tax avoidance on the cost of capital, with firm size acting as a moderating variable. Specifically, this research aims to: (1) analyze the effect of ESG disclosure on the cost of capital, (2) examine the influence of tax avoidance on the cost of capital, (3) explore the moderating effect of firm size on the relationship between ESG disclosure and the cost of capital, and (4) investigate the moderating role of firm size in the relationship between tax avoidance and the cost of capital.

This research adds to the existing body of literature by focusing on the moderating role of firm size in the relationship between ESG disclosure, tax avoidance, and the cost of capital in the context of companies listed on the Indonesia Stock Exchange and included in the SRI-KEHATI index. While previous studies have explored ESG disclosure and tax avoidance separately, this study uniquely integrates firm size as a key variable to understand its influence on the magnitude of the relationship between these factors and the cost of capital. Additionally, the analysis spans the post-COVID-19 recovery period (2018-2021), offering insights into how companies in Indonesia adapt to increased pressures for sustainable development while managing financial strategies like tax avoidance.

The findings of this research contribute to both academic and practical understanding of how sustainability practices and financial strategies influence the cost of capital, particularly in emerging markets like Indonesia. For academics, the study enriches the discourse on ESG and tax avoidance by introducing firm size as a moderating factor. For practitioners, especially company managers and investors, the research provides insights into the importance of ESG disclosures and the risks associated with tax avoidance in minimizing financing costs. It also emphasizes the role of firm size in shaping the financial outcomes of these strategies, which can be valuable for corporate decision-making and policy formulation.

RESEARCH METHOD

This study uses experimental research methods with the design used is True experiment pretest posttest control group design, with three stages, namely measuring the outline of

behavior (pre-test), providing treatment of independent variables, and measuring dependent variables that appear (post-test) and do not provide treatment again but continue to measure the dependent variable for a certain time.

The experimental and control groups were selected based on the screening results and then both given a pretest. The goal is to know the initial state of the subject before being given the treatment. Next, the subjects were randomized to divide the experimental and control groups. Experimental group is a group that was given treatment in the form of gratitude training after pretest.

Table 1. Desain experiment pretest dan posttest control grup design

	Group	*Pretest*	Treatment	*Postest*
R	Experiments	O^1	X	O^2
	Control	O^3	-	O^4

Description:
R : Randomization
O1 : Job satisfaction scale score at the time of pre-test experimental group
O2 : Job satisfaction scale score at the time of posttest experimental group
O3 : Job satisfaction scale score at the time of pre-test control group
O4 : Job satisfaction scale score at the time of posttest control group
X : Treatment in the form of Gratitude Training in the experimental group

Stages of Gratitude Training

Gratitude training used modify from gratitude training module Mukhlis and Koentjoro (2015), which consists of several stages, namely:

a. First meeting:
   1. Session I. Opening
      - Facilitator introduction
      - Participant introduction
   2. Session II. Gratitude and the meaning of work

   a. Grateful
      - Understanding grateful
      - Factors affecting gratitude.
      - Grateful function
      - Training the ability to be grateful

   b. Meaning of work
      - Understanding the meaning and job satisfaction
      - Aspects of meaning and job satisfaction
      - Factors affecting the sense of job satisfaction.

   3. Session III. Counting gratitude
      - Recording happy and less happy experiences on a life chart sheet
      - Write down one favor that you feel is most important to the group.
      - Write down the favors felt during the last two days, the last week, and the previous month.
      - Quiz.
   4. Session IV. Reflecting Gratitude
      - Watch gratitude videos.
      - Discuss the opinions of participants about the situation, the problems that exist in the gratitude video.
      - Reflect on the wisdom that can be taken from the gratitude video show by jointly evaluating yourself related to the pleasures of life that have been obtained and associated with the video show.

- Ensuring that gratitude is not only remembering the favors that have been received but also by reflecting on the favors that have been received by involving the feelings of the participants.
- Fill out a discussion sheet of gratitude video shows.
- Create a gratitude task by writing a specific thank you letter to God or an individual who has done a very meaningful good and describes the positive impact of that good on the lives of participants to date.

b. Second meeting:

5. Session V. Expressing Gratitude
   - Review previous meeting materials.
   - Ask the task of gratitude that has been given at the first meeting.
   - Read aloud Thanksgiving tasks thank you letters in turns.
   - Ask other participants to provide feedback.
   - Express what you have felt after reading the gratitude task and get responses from other participants.
   - Compare how they feel when they don't express appreciation and when they manage to express gratitude.
   - Together conclude the lessons learned after successfully expressing gratitude.
   - Optimistic game
6. Session VI. Reassess
   - Telling the happy and unhappy experiences that have been written on the worksheet graph of life.
   - Revisit less pleasant experiences and identify lessons to be learned from them.
   - Together conclude that although unpleasant experiences are an inevitable part of life, there are always valuable lessons to be learned from each of them and worthy of gratitude.
7. Session VII. Closure and evaluation
   - Motivational video playback for the creation of gratitude, relaxation and mindfulness exercises

Sample and Data Collection

This research was conducted at Bkpsdm Sanggau Regency, which is located on Jalan Ki Hajar Dewantara Ilir Village, Kapuas City, Sanggau Regency, West Kalimantan. The study took place from September 2023 to February 2024. In this study, subjects were selected using purposive sampling method, the subjects were civil servants in BKPSDM Sanggau Regency, amounting to 35 people.

The following stages will be carried out researchers in data collection:

a. Preparation of training module gratitude and job satisfaction scale;
b. Perform validation to validation experts;
c. Spreading about pretest in the form of job satisfaction scale to measure job satisfaction of civil servants. Distributed to experimental class and control class;
d. Conducting Gratitude Training in the experimental class, while the control class was not given treatment; and
e. Conducting posttest in experimental class and control class.

The data collection instrument used in this study is the Likert scale, especially the job Satisfaction Scale (Job Satisfaction Scale) which uses the job satisfaction scale from Syani et al. (2021). This scale is used to measure the level of job satisfaction in various aspects. The complete job satisfaction scale consists of 36 questions that are divided into nine aspects of job satisfaction, including salary, promotion, supervision, additional benefits, rewards, work rules and procedures, relationships with colleagues, the nature of the work itself, and communication. The assessment uses a Likert scale, which allows respondents to express their

attitudes, mentalities, assumptions and views with statements that range from strongly agree to strongly disagree, in accordance with the research methodology (Sugiyono, 2019).

Table 2. Grain Distribution Of Job Satisfaction Scale (JSS)

Aspect	Indicator	*Favorable*	*Unfavorable*	Total
Salary	Satisfied with current compensation, satisfied with salary increase	1, 2	10, 19	4
Promotion	Satisfied with promotional opportunities, are satisfied with the promotion system in the company	11, 20, 33	2	4
Supervision	Satisfied with the relationship between superiors, feel satisfied with the attitude of superiors.	3, 30	12, 21	4
Additional benefits	Satisfied with the benefits provided	13, 22	4, 29	4
Awards	Satisfied with the recognition of outstanding work	5, 23, 32	14	4
Work rules and procedures	Satisfaction with the procedures and regulations in force in the company	15	6, 24, 31	4
Relationship with colleagues	Satisfied with the way colleagues work together and the quality of colleagues	7, 25	16, 34	4
The nature of the work itself	Satisfied with the quality of the work done	17, 27, 35	8	4
Communication	Satisfied for communication with superiors and colleagues is well received.	9	18, 26, 36	4

Analyzing of Data

Descriptive statistical analysis, Pretest and Posttest Data on job satisfaction among civil servants. Standard deviation, variance, and mean are the statistical methods used. The purpose of descriptive analysis is to provide information to be studied by describing the data that has been obtained.

Hypothesis testing, data analysis techniques used to assess and determine the increase in job satisfaction is done through gain-normalized analysis <g>. Normalized gain or N-Gain score aims to evaluate how effective the use of a particular method or treatment in a study. The N gain score test is carried out by calculating the difference between the pretest value and the posttest value. By calculating the difference between the value of the pretest and posttest or gain score, it can be seen whether the use or application of a particular method can be said to be effective or not. The steps taken to analyze the normalized gain are:

a. Calculating normalized score gain by Formula:

$$N\ Gain = \frac{Skor\ Posttest - Skor\ Pretest}{Skor\ Ideal - Skor\ Pretest}$$

b. Determining the average value of the normalized gain score
c. Determining the criteria for increasing the gain in the following table:

Tabel 3. Interpretation of normalized score Gain

N-Gain Value	Categories
g > 0.7	Height
0.3 ≤ g ≤ 0.7	Medium
g < 0.3	Low

RESULTS AND DISCUSSION

Data Description

The population in this study is all companies listed on the Indonesia Stock Exchange that have been included at least once in the SRI-KEHATI index for the 2018-2021 period. The samples in this study were obtained using *the purposive sampling* method during the observation period with unbalanced panel data, the number of observed samples was 121. The following are the results of the sample selection carried out:

Table 4. Criteria and Number of Samples

Sample Determination Criteria	Total
Companies that have been included in the SRI KEHATI index 2018-2021	196
Companies that have a negative ETR value	(15)
Companies that do not have an ESG score published by the BKG Foundation 2018-2021	(60)
Sample company according to criteria	**121**

Descriptive Statistical Analysis

Table 2 Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
(Y) COC	121	.0100	.0964	.058359	.0174673
(X1) ESG	121	.0600	.9200	.284283	.1729569
(X2) ETR	121	.0091	10.598	.257888	.1424009
(Z) Firm Size	121	289.790	350.844	31.937.730	14.938.778
(X1*Z) ESG*FIRMSIZE	121	19.697	322.519	9.138.253	57.771.556
(X2*Z) ETR*FIRMSIZE	121	.2765	342.054	8.243.256	45.506.613
(C1) Leverage	121	.1179	.9447	.586198	.2372642
(C2) Profitability	121	-.0300	.4468	.051105	.0737502

Based on the table above obtained:

1) The COC variable, the minimum value is 0.0100, the maximum is 0.0964, the average is 0.058359, with a standard deviation of 0.0174673. The Minimum Value was obtained by PT Bank Central Asia Tbk in 2020 and the Maximum Value was obtained by PT Kalbe Farma Tbk in 2018
2) ESG variables, the minimum value is 0.0600, the maximum is 0.9200, the average is 0.284283, with a standard deviation of 0.1729569. The Minimum Value was obtained by Bank Danamon Indonesia Tbk and PT OCBC NISP Tbk in 2019 and the Maximum Value obtained by PT Bank Rakyat Indonesia Tbk in 2021
3) Tax Avoidance Variable (ETR), the minimum value is 0.0091, the maximum is 10.598, the average is 0.257888, with a standard deviation of 0.1424009. The Minimum Value was obtained by PP Properti in 2020 and the Maximum Value was obtained by PT Jasa Marga Tbk in 2020.

4) Firm Size variable, the minimum value is 28.9790, the maximum is 35.0844, the average is 31.937730, with a standard deviation of 1.4938778. The Minimum Value was obtained by PT Sido Muncul Tbk in 2020 and the Maximum Value was obtained by PT Bank Mandiri Tbk in 2021
5) The ESG*FirmSize variable, the minimum value is 1.9697, the maximum is 32.2519, the average is 9.138253, with a standard deviation of 5.7771556. The Minimum Value was obtained by PT OCBC NISP Tbk in 2019 and the Maximum Value obtained by PT Bank Rakyat Indonesia Tbk in 2021
6) The ETR*FirmSize variable has a minimum value of 0.2765, a maximum of 34.2054, an average of 8.243256, with a standard deviation of 4.5506613. The Minimum Value was obtained by PP Properti in 2020 and the Maximum Value was obtained by PT Jasa Marga Tbk in 2020.
7) Leverage variable, the minimum value is 0.1179, the maximum is 0.9447, the average is 0.586198, with a standard deviation of 0.2372642. The Minimum Value was obtained by PT Elang Mahkota Teknologi Tbk in 2021 and the Maximum Value was obtained by PT Bank Tabungan Negara Tbk in 2020.
8) Profitability variable, the minimum value is -0.0300, the maximum is 0.4468, the average is 0.0511 with a standard deviation of 0.0735. Minimum Value obtained by PT Timah Tbk in 2019 and Maximum Value obtained by PT Unilever Indonesia Tbk in 2028

Multicollinearity Testing

The multicollinearity test was also carried out to avoid habits in decision-making regarding the influence of the partial test of each independent variable on the dependent variable. Some criteria for detecting multicollinearity in a model are as follows:

1) If the Variance Inflation Factor (VIF) value is not more than 10
2) The Tolerance value is not less than 0.1, then the model can be said to be free from multicollinearity

Table 3 Multicollinearity Test

Coefficientsa.

Type		Collinearity Statistics	
		Tolerance	**VIF**
	(X1) ESG	.136	7.369
	(X2) ETR	.228	4.388
	(Z) Firm Size	.574	1.742
	(X1Z) ESG*FIRMSIZE	.134	7.470
	(X2Z) ETR*FIRMSIZE	.237	4.227
	(C1) Leverage	.657	1.522
	(C2) Profitability	.818	1.222

From the output above, it can be seen that the VIF value is less than 10, so it can be concluded that there is no multicollinearity in the data.

Autocorrelation Testing

In this study, the autocorrelation test was carried out using the Durbin Watson method. If the DW value obtained is between the dU and 4-dU values, it means that there is no autocorrelation in the regression model. At the number of samples (n) 121 and the number of independent variables (k) 7, the dU value is 1.82706 then 4-dU is 2.17294. Here are the results of the autocorrelation test:

Table 4 Autocorrelation Test

Model Summaryb

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.388a	.150	.098	.0175847	2.018

Heteroscedasticity Testing

To see the heterokedasticity problem is to look at the scatterplot graph with the prediction value of the dependent variable with its residual. The basis for decision-making in this test is:

1) If there is a certain pattern such as existing points forming an irregular pattern of waving, widening, and then narrowing, it means that heteroscedasticity has occurred.
2) If there is a clear pattern, and the dots spread above and below the number 0 matching the Y axis, then there is no heteroscedasticity.

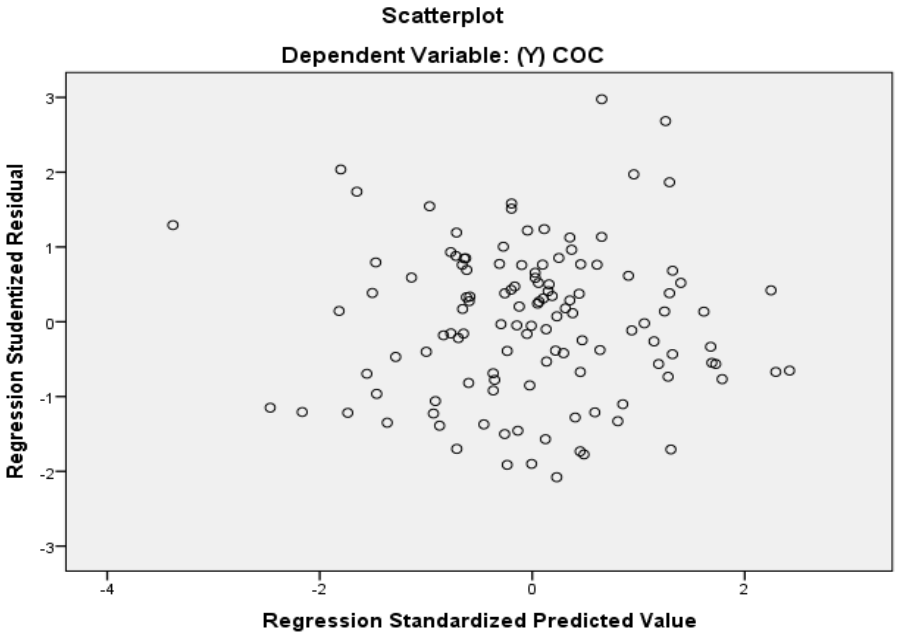

Figure 2
Heteroscedasticity Test

Based on the figure above, the dots spread without forming a specific pattern, so it is concluded that there is no heteroscedasticity in the regression model.

Coefficient of Determination Test

The results of the determination coefficient test are presented in Table 5 as follows:

Table 5
Determination Coefficient Test Results

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.388a	.150	.098	.0175847

Partial Hypothesis Testing (t-Test)

The results of partial submission (t-test) are presented in Table 6 as follows:

Table 6 Test t
Coefficientsa

Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.257	.089		2.872	.005
	(X1) ESG	-.022	.008	-.674	-2.865	.005
	(X2) ETR	.012	.005	.433	2.384	.019
	(Z) Firm Size	-.040	.016	-.284	-2.479	.015
	(X1Z) ESG*FIRMSIZE	-.009	.004	-.514	-2.168	.032

	(X2Z) ETR*FIRMSIZE	.007	.003	.354	1.988	.049
	(C1) Leverage	.003	.008	.035	.323	.747
	(C2) Profitability	-.035	.024	-.139	-1.450	.150

Simultaneous Hypothesis Testing (Test F)

The results of simultab submission (Test F) are presented in Table 7 as follows

Table 7 Test F

Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.006	7	.001	2.855	.009b
	Residual	.035	113	.000		
	Total	.041	120			

Discussion

The Effect of ESG Disclosure on Cost of Capital

The results of the analysis presented in table 6 explain that the ESG Disclosure variable has a sig value of 0.005 and a calculated t of -2.865. Because the sig value (0.005) < 0.05, H1 is accepted, meaning that there is an influence from ESG on COC in a negative direction.

The results of this study support the research of (Gholami et al., 2022)who stated that when companies perform well in the sustainability pillar, they have a lower risk perception which can result in lower capital costs

The Effect of Tax Avoidance on the Cost of Capital

The results of the analysis presented in table 6 explain that the Tax Avoidance/ETR variable has a sig value of 0.019 and a t-count of 2.384. Because the sig value (0.019) < 0.05, H2 is accepted, meaning that there is an influence of ETR on COC in a positive direction.

The results of this study support the research of (Shin & Woo, 2017) which stated that the practice of tax avoidance will make investors demand high returns.

The Effect of Firm Size in Moderating the Effect of ESG Disclosure on Cost of Capital

The results of the analysis presented in table 5 explain that the ESG*Firm Size interaction variable has a sig value of 0.032 and a t calculation of -2.168. Because the sig value (0.032) < 0.05, H3 is accepted, meaning that there is an influence of the ESG*Firm Size interaction on the COC in a negative direction, or in other words, the moderation of the Firms Size strengthens the negative influence of ESG on the COC.

The results of this study are related to previous research which revealed that the larger the company, the higher the value of ESG disclosures carried out (Oktaviyani & Mulyana, 2022) so that the reduction in capital costs can be strengthened by the influence of company size.

The Effect of Firm Size in Moderating the Effect of Tax Avoidance on Cost of Capital.

The results of the analysis presented in table 5 explain that the ETR*Firm Size interaction variable has a sig value of 0.049 and a t count of 1.988. Because the sig value (0.049) < 0.05, H4 is accepted, meaning that there is an influence of the ETR*Firm Size interaction on the COC in a positive direction, or in other words, the moderation of the Firms Size strengthens the positive influence of ETR on the COC.

The results of this study support the Agency Theory saying that the difference in interests between the principal and the agent will lead to information asymmetry (Jensen & Meckling, 1976) thus creating a political pressure from external parties to provide relevant information, especially for large companies (Sekarwigati & Effendi, 2019). If the company's information shows that there are tax avoidance practices either implicitly or explicitly, it can affect the decision of the capital provider regarding the requested capital cost.

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that ESG has a negative influence on the Cost of Capital and Tax Avoidance has a positive influence on the Cost of Capital. On the other hand, Firm Size as a moderation variable is able to strengthen the influence of ESG and Tax Avoidance on the Cost of Capital, respectively.

REFERENCES

Abdul Rahman, R., & Alsayegh, M. F. (2021). Determinants of corporate environment, social and governance (ESG) reporting among Asian firms. *Journal of Risk and Financial Management*, *14*(4), 167.

Appuhami, R. (2018). The signalling role of audit committee characteristics and the cost of equity capital: Australian evidence. *Pacific accounting review*, *30*(3), 387–406.

Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior, 18 P AC. *S OCIO. R EV*, *122*.

Firmansyah, A., Andriyani, A. F., Mahrus, M. L., Febrian, W., & Jad, P. H. (2021). Biaya modal perusahaan di Indonesia: tanggung jawab sosial dan tata kelola perusahaan. *Jurnal Ekonomi*, *26*(3), 371–388.

Gholami, A., Sands, J., & Shams, S. (2022). Corporates' sustainability disclosures impact on cost of capital and idiosyncratic risk. *Meditari Accountancy Research*, *31*(4), 861–886.

Gregory, R. P. (2022). A Meta-Analysis of the Effect of Third Party ESG Ratings on Tobin's Q, ROA, and ROE. *ROA, and ROE (April 11, 2022)*.

Jensen, M. C., & Meckling, W. H. (1979). Rights and production functions: An application to labor-managed firms and codetermination. *Journal of business*, 469–506.

Jonsdottir, G. E., Sigurjonsson, T. O., Alavi, A. R., & Mitchell, J. (2021). Applying responsible ownership to advance SDGs and the ESG framework, resulting in the issuance of green bonds. *Sustainability*, *13*(13), 7331.

Khuong, N. V., Liem, N. T., Thu, P. A., & Khanh, T. H. T. (2020). Does corporate tax avoidance explain firm performance? Evidence from an emerging economy. *Cogent Business & Management*, *7*(1), 1780101.

Meckling, W. H., & Jensen, M. C. (1976). Theory of the Firm. *Managerial Behavior, Agency Costs and Ownership Structure*.

Muslim, A. I., & Setiawan, D. (2021). Information asymmetry, ownership structure and cost of equity capital: The formation for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 48.

Oktaviyani, Y., & Mulyana, B. (2022). The Effect of Financial Performance, Firm Size, Corporate Social Responsibility and Firm Value on Plantation Sub-Sector Issuer. *Science Journal of Business and Management*, *8*(3), 138–145.

Ould Daoud Ellili, N. (2020). Environmental, social, and governance disclosure, ownership structure and cost of capital: Evidence from the UAE. *Sustainability*, *12*(18), 7706.

Raimo, N., Caragnano, A., Zito, M., Vitolla, F., & Mariani, M. (2021). Extending the benefits of ESG disclosure: The effect on the cost of debt financing. *Corporate Social Responsibility and Environmental Management*, *28*(4), 1412–1421.

Roestanto, A., Vivianita, A., & Nurkomalasari, N. (2022). Pengaruh Ukuran Perusahaan, Umur Perusahaan, Jenis Industri, Dan Struktur Kepemilikan Terhadap Environmental, Social, And Governance (Esg) Disclosure (Studi Empiris Perusahaan Di Indonesia Yang Terdaftar Di Idx 2017-2020). *Jurnal Akuntansi STIE Muhammadiyah Palopo*, *8*(1), 1–18.

Safriani, M. N., & Utomo, D. C. (2020). Pengaruh environmental, social, governance (ESG) disclosure terhadap kinerja perusahaan. *Diponegoro Journal of Accounting*, *9*(3).

Sekarwigati, M., & Effendi, B. (2019). Pengaruh Ukuran Perusahaan, Profitabilitas, dan Likuiditas terhadap Corporate Social Responsibility Disclosure. *STATERA: Jurnal*

Akuntansi Dan Keuangan, *1*(1), 16–33.
Shin, H. J., & Woo, Y. S. (2017). The effect of tax avoidance on cost of debt capital: Evidence from Korea. *South African Journal of Business Management*, *48*(4), 83–89.
Sugiyono. (2019). *Metode Penelitian Kuatitatif Kualitatif dan R&D* (Pertama). CV. ALFABETA.
Van Horne, J. C., & Wachowicz Jr, J. M. (2000). *Instructor's Manual*. Prentice Hall.
Yee, C. S., Sapiei, N. S., & Abdullah, M. (2018). Tax avoidance, corporate governance and firm value in the digital era. *Journal of Accounting and Investment*, *19*(2), 160–175.
Yeh, C.-C., Lin, F., Wang, T.-S., & Wu, C.-M. (2020). Does corporate social responsibility affect cost of capital in China? *Asia Pacific Management Review*, *25*(1), 1–12.
Yilmaz, I. (2022). ESG-based sustainability performance and its impact on cost of capital: International evidence from the energy sector. *International Journal of Applied Economics, Finance and Accounting*, *12*(2), 21–30.
Zhao, J.-L., & Lv, B.-W. (2018). Determination of Knowledge Sharing Threshold Between Enterprises—Based on Game Theory. *Proceedings of the Fifth International Forum on Decision Sciences*, 165–174.