

## ESG Factor and Cost of Capital: What Do We Know?

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**Abstract:** This study examines whether ESG factors and cost of capital (COC) influence firm value (FV) increase. The sample was selected based on predetermined criteria, which included all companies listed on the stock exchanges in each ASEAN member country between 2018 and 2022, obtained from the Refinitiv Eikon database. The total sample obtained for this study was 920 samples from 184 selected companies. ESG scores were obtained from the Refinitiv Eikon database, COC was measured using the Weighted Average Cost of Capital (WACC), and FV was measured using Tobin's Q. The results indicate that ESG positively influences FV. In contrast, COC does not influence FV. This study aims to analyse whether ESG and COC affect FV in companies listed on the stock exchanges of ASEAN member countries.

**Keywords:** Firm Value; ESG; COC; ASEAN.

**Abstrak:** Penelitian ini mengkaji apakah faktor ESG dan Cost of Capital (COC) memiliki pengaruh terhadap peningkatan Firm Value (FV). Sampel dipilih berdasarkan kriteria yang telah ditetapkan, yaitu seluruh perusahaan yang tercatat di bursa efek di masing-masing negara anggota ASEAN antara tahun 2018 dan 2022, yang diperoleh dari basis data Refinitiv Eikon. Total sampel yang diperoleh untuk penelitian ini adalah 920 sampel dari 184 perusahaan terpilih. Skor ESG diperoleh dari basis data Refinitiv Eikon, COC diukur menggunakan Weighted Average Cost of Capital (WACC), dan FV diukur menggunakan Tobin's Q. Hasil penelitian menunjukkan bahwa ESG memiliki pengaruh positif terhadap FV, sedangkan COC tidak memiliki pengaruh terhadap FV. Penelitian ini bertujuan untuk menganalisis apakah ESG dan COC memengaruhi FV pada perusahaan yang tercatat di bursa efek negara anggota ASEAN.

**Kata Kunci:** Nilai Perusahaan; ESG; COC; ASIA.

## INTRODUCTION

The company aims to improve shareholder welfare and strengthen firm value (FV) by optimising its financial performance (DwicaHyani et al., 2022). Company value assessment is a key factor in the company's attractiveness to investors (Santiani, 2018). A company's development requires additional capital, which can be obtained through debt or by increasing the number of new shareowners. (Purnama & Sufiyati, 2022). Company value is often related to the success of the company's value; this is reflected in the stock price, which is considered an indicator of the company's value (Kosman & Widjaja, 2018). When the stock price rises, it signals good prospects for the company. Therefore, the company's goal of increasing shareholder returns can be achieved by increasing company value.

Firm value is an investor's view of the extent to which a company is successful, which is reflected in its share price (Kosman & Widjaja, 2018). If the share price increases, this will provide very positive benefits for the company's value and increase



market confidence in the company's prospects and performance going forward. Company value is a condition that has been achieved through activities since the company was founded, reflecting the level of public trust in the company (Santiani, 2018). If market confidence in a company is high, it will be a positive encouragement for potential investors. The importance of corporate values encourages companies to generate positive value, including through activities outside the financial aspect, namely ESG.

*Environmental, social, and governance* (ESG) factors can affect firm value by contributing to corporate reputation, risk reduction, access to greater capital, operational efficiency, innovation, and the company's ability to compete and grow long-term. Many investors are starting to pay attention to environmental, social, and corporate governance factors when deciding to invest in a company. This emphasises that companies are responsible for behaving sustainably and minimising negative impacts on the environment and social community (Isnindiah & Aria Farah, 2024).

Environmental, social, and governance factors are used to determine investment choices. Environmental, Social, and Governance (ESG)-based investments show increasing investor interest. An empirical study by (Park & Jang, 2021) emphasises that environmental factors significantly determine the company's investment decision factors. Companies that meet standards and perform well in environmental practices tend to attract better sustainable funding sources. In an era when awareness of environmental issues is increasing, investors, as supporters of increasing company value, tend to consider how companies manage their environmental impacts. Companies that actively implement ESG practices are often considered safer and more responsible investment options (PrimaFira et al., 2024). This indicates that environmental, social, and governance elements are not just moral issues but also impact a company's reputation and ability to raise capital.

Companies that implement sound environmental practices are usually better able to adapt to increasingly stringent environmental regulations and handle environmental risks that may arise (Lin & Zhao, 2023). Therefore, environmental, social, and governance factors are not only components of a company's sustainability plan but also play a very significant role in attracting investors and strengthening the company's financial stability for the long term. With ESG aspects, companies can design a superior and sustainable investment strategy that combines ESG considerations with the company's long-term financial goals, increasing corporate value.

In recent years, sustainability reporting has become more widespread around the world. In 2000, only 48 organisations published sustainability reports, but by the end of 2017, the number of organisations publishing sustainability reports increased significantly to 12,075 from various countries (Melinda & Wardhani, 2020). In 2016, ASEAN member countries in the ASEAN Taxonomy Board (ATB) announced the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy) as a form of commitment to running an environmentally, socially, and governance sustainable economy (ASEAN, 2020). The economic principle of sustainability encourages long-term investment in companies, which is currently known as *sustainable investing*. *Sustainable Investing* is one of the investments made by considering several aspects, namely *Environmental, Social, and Governance* (ESG). (Kartika et al., 2023; Stobierski, 2010). According to the PwC survey (2021), almost 80 per cent of investors consider ESG a significant factor in investment decision-making. Investment decision-making viewed through the presence of ESG factors is also supported by the company's return on



capital on a particular investment. ESG has become an important factor in long-term investment considerations for companies, with many investors using this criterion in investment decisions. It plays a key role in shaping a consistent, sustainable share value, increasing the company's value.

ESG research has grown rapidly in recent years, but much remains to learn about the relationship between ESG and firm value. ESG issues and risks, such as new technologies (e.g. artificial intelligence and *blockchain*), climate change and environmental degradation, pose risks and opportunities for the development of ESG within companies (Dang et al., 2024). ESG research can help companies identify and effectively manage these risks and opportunities, ultimately increasing firm value through responsible investment.

*Cost of Capital* (COC) is a key factor that can affect the value of a company. COC generally determines the rate of return required for investors to be interested in investing in the company (Kurniasih et al., 2022). Companies must have advantages in technology, products, and human resources to compete well in an economic world that has entered a new phase as a form of increasing company value (Martini et al., 2018). To achieve these advantages, companies must obtain significant investment funds with activities in the capital market. The cost of capital is measured by the minimum required rate of return, assuming the risk level of the new investment is equal to the risk of the assets owned so that the company is not declared a loss.

The capital market has become an attractive option for domestic and foreign investors. Changes in stock prices in the capital market are influenced by investor demand. High demand will push the share price up, while the motivation for share ownership can be seen from profit expectations and the level of COC. The rate of return through COC can allow the company to expand its business and continue to operate on a large scale to increase its value. Companies can achieve long-term success and strengthen relationships with stakeholders by understanding and managing the cost of capital and paying attention to ESG factors (Gonçalves et al., 2022).

In a dynamic capital market environment, capital costs fluctuate as market conditions change. Therefore, research on the Cost of Capital (COC) is important to understand the factors that affect future COC for companies. This information is valuable for companies in making investment and funding decisions and informing public policies that affect the capital market. The costs incurred can be explicit, such as interest costs; there are also implicit costs, namely costs that are not incurred at this time but are incurred in the future, such as the difference in the price of bonds issued at maturity and levelled in the years the bonds are valid. The determination of the cost of capital is intended to find out how much the real costs that the company must incur to obtain the necessary funds.

Investors who deeply trust a company are more likely to invest more. This trust influences how investors perceive the company's value, with higher perceived value often leading to higher share prices and increased shareholder wealth. A company's capital structure, the mix of debt and equity it uses for funding, plays a crucial role. A well-chosen capital structure maximises returns and boosts performance. The cost of capital, particularly the weighted average cost of capital (WACC), is a key factor in determining the optimal capital structure. WACC considers both the cost of equity and the cost of debt.

WACC reflects the average cost of capital that a company must bear to fund its



operations so that WACC can measure the company's level of risk. Companies with high risk will usually reflect a higher WACC value because investors demand a higher rate of return to compensate for the risk. A company with a high WACC value can reduce its value because investors are not interested in investing in high-risk companies. Therefore, companies must try to reduce WACC by optimising the company's capital structure and reducing the company's business risk.

The function of the weighted average cost of capital (WACC) is to help management evaluate whether the company should finance the purchase of a new asset with debt or equity by comparing the two cost options: financing a new asset purchase with debt or equity can make a significant impact on the company's profitability and overall stock price, Balance the stock price, investors' return expectations, and the total cost of the asset purchase, and Assess whether a merger decision is potentially good or bad evaluating whether a company is worth investing in or lending to. Therefore, COC is important in supporting the company's value with a good image.

(Melinda & Wardhani, 2020) Revealed a positive influence between ESG and FV in companies listed on the stock exchanges of Asian countries. Other researchers (Li et al., 2018; Nekhili et al., 2021; Prabawati & Rahmawati, 2022) conducting similar tests with an ESG focus on FV also obtained favourable results. Meanwhile, according to the research results (Cordazzo et al., 2020); (Rastogi et al., 2024), ESG negatively influences FV.

Previous studies that reveal the positive effect of cost of capital (COC) on FV are according to (Jezkova et al., 2020; Kurniasih et al., 2022). There are gaps with other researchers, namely (Golmohammadi et al., 2021 and Titisari et al., 2019), which revealed that COC hurts FV.

This study aims to

understand the relevance of ESG factors and the impact of COC on firm value by analysing whether ESG and COC affect FV in companies listed on the stock exchanges of ASEAN member countries from 2018 to 2022.

The novelty of this research is that it uses data obtained through the Thomson Reuters *datastream* on companies incorporated in ASEAN countries. Another novelty of this study is to test the two independent variables ESG and COC on FV, which in previous studies has never been combined between ESG and COC in the relationship with FV.

This research contributes to various parties' decision-making. For the company's board of directors (internal parties), this research encourages the development of sustainability strategies through ESG optimisation and the balance of debt and equity to optimise COC. By optimising ESG and COC, companies can manage operations well, compete in the business world, and increase company value. Contribution for investors (external parties): Investors can decide to invest in the company by assessing ESG and COC. So, this research contributes to the company and investors.

## **THEORETICAL REVIEW**

**Signalling Theory** has become popular in marketing, especially when companies use signals to overcome information imbalances between stakeholders. (Kosiba et al., 2020; Shahid et al., 2024). Signalling theory is a concept in which signals transmit information between parties in a business context, especially to overcome information





imbalances due to lack of or inadequate information (Spence, 1973). This theory has become an important basis in the marketing research of companies in gaining investors, especially in analysing how stakeholders respond to the information conveyed by companies to them. As such, the signal theory has proven relevant in understanding a wide range of behaviours, such as when two different parties, organisations and individuals, have access to different information. (Shahid et al., 2024).

The information released by the company is important because it influences stakeholders' investment decisions. ESG and COC are information provided to stakeholders as a signal of how management views the company's prospects in the future, as a basis for decision making and affecting the company's value. A higher ESG score can reduce information asymmetry, as the company can use the score to indicate to stakeholders that they are a high-quality company (Priem & Gabellone, 2024). Efforts to minimise information asymmetry are also by looking at COC; investors tend to like lower COC because it signals potential investment gains and risks.

This study uses this signal theory because it relates to the company's efforts to increase its value by providing signals to the market. The signals provided by the company are information about ESG and COC that will affect the perceptions of investors and the market to minimise information asymmetry and affect the company's value.

**ESG disclosure and firm value**, as well as ESG scores, are currently considered key financial instruments used to construct environmentally conscious portfolios and assess the ESG performance of companies, especially in the context of responsible investment (Clément et al., 2023). According to Socially Responsible Investments based on ESG scores, they are expected to reach over US\$53 trillion by 2025, more than one-third of total global assets under management. Therefore, companies must improve their environmental, social and governance performance. The ESG score consists of assessments in three categories: environmental aspects (such as environmental impacts, resource use, biodiversity impacts, and waste management); social issues (such as impacts on communities and suppliers working conditions); and governance issues (such as organisational transparency, linkages to shareholders and boards, executive compensation, and board diversity).

The impact of ESG performance on firm value has been discussed in academia and business research for several years. The focus of many studies was traditionally on how corporate governance influences stock price performance. In line with the rising interest in climate change, circular economy and biodiversity issues, research began to cover the link between environmental performance and stock price performance. More recently, with the COVID-19 pandemic and global health crisis, the impact of changing demographics and social issues on stock returns, with a particular emphasis on health, safety, and wellbeing, as well as on human capital management issues such as employee satisfaction, diversity and inclusion gets much attention.

ESG scores are developed to meet the needs of the financial sector in evaluating companies based on these three criteria and recognising companies that excel in their performance. Physical and non-physical data is utilised to compile these ESG scores, which are then published by private commercial companies whose clients are mostly portfolio managers and other investors. (Escrig-Olmedo et al., 2019). Initially, ESG assessments were only indicated for financial entities. However, nowadays, they can improve a company's image (Arouri et al., 2019), reduce regulatory burden (Christensen



et al., 2019), reduce potential financial risks (Chollet & Sandwidi, 2018) and attract greater investment.

Efficient utilisation and allocation of resources by companies to address environmental challenges can provide companies with sustainable competitive advantages and generate added value (Tang et al., 2024). Good ESG performance can help companies gain more access to resources (Tang, 2022), attract customers, and reduce financing costs. It becomes easier for companies to create competitive advantages and increase market value quickly. Companies that demonstrate good ESG performance will not face obstacles related to environmental or social responsibility policies, which can help increase market value in the long run (Tang et al., 2024). From a different point of view, good ESG performance supports companies by establishing reputational assets (Maaloul et al., 2023; Murè et al., 2021). These assets can be key to a company's competitiveness, ultimately increasing market value.

Previous researchers (Melinda & Wardhani, 2020) who tested the relationship between ESG disclosure and firm value received significant positive results in companies in the Asian region. (Y. Li et al., 2018); (Nekhili et al., 2021) tested the same thing, showing that the results of ESG in a company increase the value of the company.

Companies with positive ESG performance tend to have more support from institutional investors (Park & Jang, 2021).

When a company performs better in environmental, social, and corporate governance (ESG), institutional or individual investors will have more confidence. Stakeholders tend to increase the number of shares they own. Moreover, in a market often influenced by investors' irrational behaviour, a positive trend in ESG will also invite more investors to buy the stock, pushing the company's market value up. The following assumptions are proposed:

**H1:** ESG has a positive effect on firm value.

**Cost of Capital and firm value:** The cost of capital reflects the historical costs of the capital structure, namely the mix of loans and shares (Ibrahim et al., 2021). Therefore, the optimal capital structure is the same as the optimal cost of capital. In economics, these two concepts are interrelated because they have similar objectives. Every company aims to achieve a combination of capital structure that can reduce the cost of capital (*return on debt and equity*) while increasing the company's value. An investment is considered valuable to the firm only if the predicted return on capital exceeds the cost of capital. The thinking is that the firm should generate maximum profits to satisfy its shareholders, increasing its value.

The primary function of the cost of capital is to guarantee that a business can grow its activities and sustain operations on an expanded level. This requires essential decision-making in several areas, including managing long-term debts, retained earnings, asset efficiency, and capital distribution. As a result, efficiently managing the cost of capital has emerged as a critical issue for companies, with many financial leaders striving to identify the best cost. For an investment to be considered valuable, the expected returns on capital must exceed the cost of capital. This anticipation arises from the investor's wish to optimise gains or returns from the capital invested in a company. Consequently, a business should increase profits to please its shareholders and improve its overall worth.

Environmental performance reflects a company's concern for the environment. Investors tend to trust companies that are transparent and committed to environmental issues, thereby reducing risk and gaining access to capital at a lower cost. Companies with poor environmental disclosure will be viewed poorly by stakeholders, bear more social costs, and consequently, access to capital becomes more expensive. Social disclosures related to employee welfare and good relations with the community can increase investor confidence, thereby lowering the cost of capital. Good governance disclosure aims to ensure that directors and executives act in the interests of shareholders. Companies with good governance have legitimacy, strong networks and knowledge of issues, making them more transparent and resulting in a lower cost of capital.

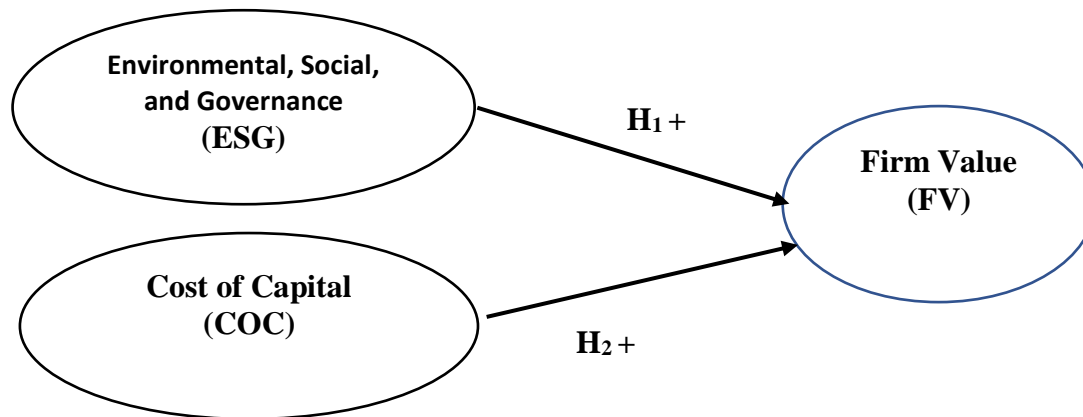
Calculating the cost of capital is a key aspect in the valuations made by various parties, such as company managers, financial analysts, investors, accountants, regulators, and academics. Despite its practical importance, projecting the cost of capital is often challenging for financial experts and academics (Olson & Pagano, 2023). The conventional method for cost of capital evaluation is to project the firm's weighted average cost of capital, known as WACC. While WACC is theoretically appealing and easy to understand, its estimation faces several practical challenges when using real-world data. For one, the calculation of WACC requires estimating the relative weights of debt and equity in the capital structure, the after-tax profit required for the firm's debt securities, and the profit required for the firm's common equity (H. Li, 2019). Knowledge of the COC cost of capital can reduce the disparity between the two parties. The market welcomes an increase in the cost of capital, signalling that the company can generate a return greater than its cost of capital (Kurniasih et al., 2022).

WACC is a measure often used to assess company sustainability through company value, but WACC still has limitations in measuring real company value. (Rady et al., 2019) have researched this in the Middle East, discussing the impact of WACC in MENA (Middle East and Africa) countries using mixed methods, namely qualitative and quantitative. The results showed a difference between quantitative and qualitative analysis regarding the role of WACC and real conditions. The WACC value in a company does not always reflect the actual conditions, so WACC cannot be used as the only indicator of company sustainability.

An investor will not inject his capital into an investment if other more attractive investment options exist, including risk considerations. This means that the investor will choose to buy the asset that offers the highest return corresponding to a certain level of risk or has the least risk for a certain level of return. This principle is assumed because, generally, higher risks are associated with greater potential returns. Previous research that examines the relationship between the cost of capital and firm value explains in the results of its research that the cost of capital has a positive influence on firm value. (Jezkova et al., 2020; Kurniasih et al., 2022). This means that the market well receives the cost of capital and investors like high returns but with low risk. The company utilises the funds invested by investors. The firm's objective is to allocate that capital, including the income generated from business operations, to create value that exceeds the cost of capital. The following assumptions are proposed:

**H2:** Cost of Capital has a positive effect on firm value.





**Figure 1. Research Model**  
(Processed by the author)

## METHODS

This research is intended to causally identify the cause-and-effect relationship between the independent and dependent variables. Causal research aims to answer questions about the cause-and-effect correlation between the independent and dependent variables posed in the existing problem (Leny & Ramadhani, 2023). In the research context, a relationship is generally between the phenomenon under study and its variables. Several experts have expressed their views on the concept of variables. Variables are defined as aspects that are observed in research to determine the objectives to be achieved (Leny & Ramadhani, 2023).

**Research Design and Data Sources.** This study utilises a quantitative design by utilising existing financial statement data as a secondary source of information. Quantitative research methods involve using randomised procedures in sampling, research tools to collect data, and statistical or quantitative analysis to address specific problems. The main objective is to evaluate the hypothesis resulting from the calculations and measurements. Secondary data is obtained through the annual financial statements of all companies listed on the Stock Exchange in each ASEAN member country between 2018 and 2022 obtained from the Refinitiv Eikon *database*.

**Population and Research Sample.** A population is a large group divided into individuals or subjects based on certain qualities and characteristics researchers identify to investigate further and analyse the population (Maryanti & Agus Munandar, 2024). The population in this study is all companies listed on the Stock Exchange of ASEAN member countries from 2018 to 2022 above 5000 companies. Samples are used to represent the population in terms of number and nature. If the population is huge or cannot be examined thoroughly by a researcher due to limited resources or large size, it is necessary to use a sample. The sampling method called purposive sampling involves determining the criteria and characteristics of the population in advance to produce data that represents the population in the sample collection process. (Leny Suzan & Nurul Izza Ramadhani, 2023). The sample selection is based on the specified criteria, as follows: (1) All companies listed on the Stock Exchange of each ASEAN member country from 2018 to 2022; (2) Companies that disclose reporting on ESG; (3)



Companies that have ESG scores so that the sample obtained in this study is 920 samples from 184 selected companies.

**Table 1.** Operational Variables

Variables	Variable Definition	Indicator	Scale
<b>Independent Variable:</b>			
Capital Costs (COC)	The cost of capital for the company is the cost that investors must incur to obtain a diversified portfolio (Ibrahim et al., 2021)	Weighted Average Cost of Capital (WACC <i>Refinitiv Eikon</i> )	Ratio
Environmental, Social, Governance (ESG)	ESG consists of three pillars: Environmental, Social, and Governance. ESG is attracting much attention from companies and investors to raise awareness of the social and environmental responsibilities that ESG factors have on the long-term financial performance of companies. (Rau & Yu, 2023)	Refinitiv Eikon ESG Score	Ratio
<b>Dependent Variable:</b>			
Firm Value (FV)	Firm value is the present value of future income ( <i>future free cash flow</i> ) (Bandiyono, 2020)	Tobin's Q	Ratio

**Table 1** shows the independent variables in this study, which are COC and ESG. ESG is measured using ESG scores obtained through the Refinitiv Eikon database. COC is measured using the WACC calculation. WACC is the average value of a company's capital components (Zef Arfiansyah, 2022). However, in this study, the WACC calculation only considers capital obtained from equity and debt. The WACC calculation is done by considering the cost of debt after considering the company's marginal tax rate to evaluate the impact of the debt tax shield (Zef Arfiansyah, 2022).

$$WACC = \frac{\text{Equity}}{\text{Equity} + \text{Debt}} \times COE + \frac{\text{Debt}}{\text{Equity} + \text{Debt}} \times COD (1 - T) \dots\dots\dots (1)$$

WACC is the cost of the company's capital; Equity is the total equity of the company; Debt is the amount of interest-bearing debt of the company; COE is the cost of the company's equity; COD is the cost of the company's debt; T is the firm marginal tax rate in a year. Companies use this method to determine the rate of return, which indicates the return shareholders demand for providing capital. It also helps investors gauge cash flow risk and desirability for company shares, projects, and potential acquisitions. In addition, it sets a discount rate for future cash flows to derive value for the business.



The dependent variable in this study is FV. One of the things that investors consider when making investments is the value of the company in which they will invest. This study uses the Tobin Q calculation to indicate firm value (Rasyid et al., 2022).

$$\text{Tobin's Q} = (\text{MVE} + \text{D})/\text{TA} \dots\dots\dots (2)$$

MVE is the Market Value of Equity; D is Total Liabilities; TA is Total Assets.

**Regression Model.** This study examines the relationship between the cost of capital and ESG on the value of companies in the Stock Exchange of each ASEAN member from 2018 to 2022. Model testing using the OLS (*Ordinary Least Square*) regression model is conducted to test hypotheses 1 and 2. This study utilises STATA 17 to conduct descriptive statistics, correlation, and multicollinearity testing. The following is a view of the research framework:

$$\text{Tobin'Q} = \alpha + \beta_1 \text{COC} + \beta \text{FV}_2 \dots\dots\dots (3)$$

## RESULTS

**Descriptive Statistical Test.** Table 2 shows the results of descriptive statistical tests on 920 observations of companies listed on each ASEAN Country Stock Exchange from 2018 to 2022. Table 2 shows that the average ESG Score is 55,576, with a minimum value of 4,799, a maximum value of 91,787 and a standard deviation of 17,720. This value is consistent and within a reasonable range compared to previous research. (Melinda & Wardhani, 2020); (Nekhili et al., 2021); (Prabawati & Rahmawati, 2022). Furthermore, the average value of the Weighted Average Cost of Capital (WACC) is 0.075, with a minimum value of 0.003, a maximum of 0.288, and a standard deviation of 0.032. This value is also consistent and still within a reasonable range with previous studies such as (Jezkova et al., 2020); (Kurniasih et al., 2022).

**Table 2.** Descriptive Statistics

Variables	N	Mean	Min	Max	Std. Deviation
ESG Score	920	55.576	4.799	91.787	17.720
WACC	920	0.075	0.003	0.288	0.032
Tobin's Q	920	1.690	0.251	17.678	1.720

Source: Data Proceed by STATA, 2017

**Table 2** shows a summary descriptive analysis of the key variables. The sample includes 184 companies from 2018 to 2022. Variable definition: ESG score is an indicator score that can provide an overview of the extent to which the company pays attention to ESG factors in its operational activities. WACC is an indicator that measures the company's weighted average cost of capital (COC). Tobin's Q is an indicator used to measure the company's value, which is measured by the market value and total value of the company's assets.



**Table 3.** Pearson Correlation Test

Variables	Tobin's Q	ESG Score	WACC
Tobin's Q	1.000		
ESG Score	0.141*	1.000	
WACC	-0.015	0.024	1.000

Source: Data Proceed by STATA, 2017

**Table 3** shows the Pearson correlation matrix for 879 firm observations for all variables. \* represents a 1 per cent significance level. Table 1 explains the definition of each variable.

**Table 3** shows the results of the Pearson correlation test to test the correlation between variables. The highest correlation is between the ESG Score and Tobin's Q (0.141). After the correlation test, a multicollinearity test using the Variance Inflation Factor (VIF) method is conducted, as shown in **Table 4**. The results show that the observation data is free from multicollinearity problems; the VIF value is smaller than 10.

**Table 4.** OLS Regression

OLS Regression Estimation			
Dependent Variable	Tobin's Q		
Independent Variable:	T	P	
ESG Score	4.340	0.000	
WACC	-0.580	0.563	
Average VIF	1.000		
R <sup>2</sup>	0.020		
Adjusted R <sup>2</sup>	0.018		
F	9.510		
It is more than F	0.000		

Source: Data Proceed by STATA, 2017

**Table 4** shows the results of the Ordinary Least Square regression test to examine the relationship between Environmental, Social, Governance (ESG) and Cost of Capital (WACC) with Firm Value (Tobin's Q) in the model above. Table 4 shows that WACC with Tobin's Q has no effect with a coefficient of 0.563 and a t-value of -0.580. **Table 4** ESG score with Tobin's Q has a significant positive effect with a coefficient of 0.000, and the t value is 4.340. So, the results of H2 are rejected, and H1 are accepted.

## DISCUSSION

### The Effect of Environmental, Social, and Governance (ESG) on Firm Value.

This study confirms a significant positive between environmental, social, and governance on firm value. Some studies align with this research and provide evidence that companies that carry out ESG practices increase firm value and convince investors that ESG-based companies have good risk management. (Melinda & Wardhani, 2020) Shows that for companies in the Asian region, the better the company's ESG performance will impact increasing company value. In contrast, if the company's ESG performance is poor, then this can decrease the company's value. Other researchers (Li et al., 2018; Nekhili et al.,

2021; Prabawati & Rahmawati, 2022) suggest that the presence of ESG factors in the company can affect the company's value and show the company's commitment to sustainability and social responsibility.

This study proves that ESG positively impacts firm value; ESG is considered important for firm value through investors' views of the company. The aim of ESG in companies is to direct the attention of most investors and financial analysts to financial reporting principles related to ESG issues. ESG receives attention from investors because they think that companies that actively address ESG issues have a competitive advantage over other companies in the same sector. In addition, these companies are seen as having a superior advantage in achieving both concrete and intangible outcomes over the long term. Companies that pay attention to ESG aspects tend to be better prepared for changes in environmental regulations and the risks associated with these changes, have better relationships with society, and companies with good governance tend to be more transparent, accountable, and have more effective risk management.

The results of this study perform the function of Signaling Theory, which focuses on how insiders (such as company management) deliberately convey positive information to outsiders (such as investors or other stakeholders) (Kosiba et al., 2020). In ESG, companies can utilise ESG information disclosure as a signal to investors and stakeholders that the company is committed to social and environmental responsibility. By disclosing ESG information, the company seeks to change stakeholders' perceptions and expectations regarding its sustainability practices. Therefore, ESG can serve as a positive signal regarding the sustainable practices implemented by the company.

Several other factors support the company's disclosure of ESG when implementing it. Companies do not rely solely on investors to implement ESG. These factors prioritise investors and show a commitment to leading the company to benefit all interests, the country, and the company. This supports investment decision-making and increases the company's value. **Table 5** summarises the factors behind companies' ESG practices and their explanations.

**Table 5.** Company Factors on ESG

Category	Factors that support	Source
<b>Country Level</b>	Corporate State Ownership	(Hu et al., 2018)
	Government Policy	(ASEAN, 2020); (Pranesti et al., 2022)
<b>Firm Level</b>	Green Washing	(De et al., 2022); (Li et al., 2021); (Rau & Yu, 2023); (Yu et al., 2020)
	Gender Diversity	(Isnindiah Sofiati & Aria Farah Mita, 2024); (Sormin et al., 2023)
	Company Size	(Oktafiyani et al., 2024)

**Table 5** shows that corporate state ownership in companies plays an important role in ESG. This is due to state support, which allows companies to respond to government strategies that promote sustainable development. Corporate state ownership has a significant commitment to sustainability and the interests of society as a whole, so companies that have shared ownership by the government tend to focus on social responsibility, which ultimately affects investment decisions in ESG. Social and



government pressure encourages companies to be more involved in ESG issues and publish related information (Hu et al., 2018).

The role of the government in terms of *Environmental, Social, and Governance* (ESG) is very influential in encouraging companies and sectors to implement sustainability and social responsibility practices. ESG development and implementation policies vary across countries, with Indonesia having OJK Regulation No. 51/PJOK.03/2017 imposed on public companies the requirement for sustainability reporting (Pranesti et al., 2022). Although only public companies must present sustainability reports, many private companies transparently do so using international standards. Not only through government regulations in each country that regulate ESG awareness, but the Association of Southeast Asian Nations (ASEAN) through the ASEAN Taxonomy Council announced the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy) as a form of commitment to running a sustainable economy on ESG (ASEAN, 2020). This proves that the role of the government or state affects the disclosure of ESG in companies to help issuers and investors understand ESG in economic activities.

*Greenwashing* is another reason companies use ESG in their business processes, as individual companies have problems with corporate image (Rau & Yu, 2023). *Greenwashing* has negative implications; it makes false and misleading statements about the company's environmental practices to provide a more environmentally friendly image (Yu et al., 2020). Greenwashing is characterised by poor ESG performance and positive communication about ESG performance. Consumers or the public are becoming discerning and cynical of firms as they claim to protect the environment but fail to demonstrate their actions. Greenwashing can negatively affect consumer and investor confidence, especially in claimed green products, and this green marketing tactic can scar, erode, and or damage the consumer market for these products and the participation of investors in capital markets.

Furthermore, firms engaged in greenwashing are often embroiled in lawsuits, sometimes class actions, for false advertising. A few papers study the effects of greenwashing, but research is making inroads in three areas. Companies use ESG to provide a good image by avoiding exposure to greenwashing. To ensure investors can trust the company's ESG, the company must provide transparent and honest information in ESG disclosure (De et al., 2022; T. T. Li et al., 2021).

Independent parties of the company assess ESG performance based on the disclosures provided by the company. Optimising the role of the company's board of directors is very important to improve ESG performance, which can increase company value, considering that the board of directors acts as the company's manager (Isnindiah & Aria Farah, 2024). The company's board of directors has diverse characteristics; *gender diversity* is one of the characteristics of the board of directors that can increase ESG value in ESG disclosure. *Gender diversity* on the board of directors means a mixture of men and women on the company's board of directors. The participation of both genders in leadership positions greatly benefits the company, as gender-diverse board members bring different talents and leadership styles to the decision-making process, such as in terms of ESG disclosure and evaluation of the company's ESG performance. (Ilona et al., 2023; Sormin et al., 2023). Company directors try to convey the best information about the condition of the company, one of which is through ESG as a positive signal shown to investors.



Company size is one of the important factors in ESG disclosure. Large companies tend to be more capable of ESG disclosure, as they can bear high costs. In contrast, small companies are concerned that transparent disclosure may harm their competitiveness. Large companies are often under intense scrutiny from stakeholders and are subject to government investigations (Bhattacharyya & Agbola, 2018). This intensive scrutiny and government investigations encourage companies to disclose ESG-related information transparently.

This study uses better year data than previous researchers. From 2018 to 2022, the ESG concept was increasingly popular, a significant period in the development of ESG policies throughout the world, including ASEAN. Hence, the increasing attention of stakeholders makes this research more evident in how ESG affects firm value. However, this study has shortcomings compared to previous research; it did not test the ESG variable separately, making it difficult to understand how each component (Environmental, Social, and Governance) affects firm value.

**The Effect of Cost of Capital on Firm Value.** The study examines the effect of ESG on firm value and cost of capital (COC) on firm value. It aims to prove whether COC is important in determining firm value and confirms a significant negative relationship between cost of capital (COC) and firm value.

Based on the results of the regression calculation, WACC does not influence firm value. The results of this analysis indicate that changes in WACC value do not affect changes in the level of firm value. This study does not support the results of previous studies (Jezkova et al., 2020); (Kurniasih et al., 2022). These researchers state that COC has a positive impact on firm value. This means that investors view COC in the decision-making process because they prefer a high rate of return. The higher the WACC value, the more expensive the company's COC; this means that the company must pursue a higher rate of return than the WACC value level to make the investment profitable for investors. However, this study supports the research of (Kamela, 2021) (Zhukov, 2018), which states that the COC value measured by WACC does not affect firm value.

In this study, the measuring tool used in assessing the cost of capital to firm value is the WACC approach, but in this approach, WACC has weaknesses. Calculate WACC requires estimating the cost of debt and the cost of equity, where in reality, the cost of debt and the cost of equity can change over time, especially with changes in market conditions, interest rates, and company policies so that WACC cannot be assumed to be constant in the firm value analysis. (Rady et al., 2019) have researched this in the Middle East, discussing the impact of WACC in MENA (Middle East and Africa) countries using mixed methods, namely qualitative and quantitative. The results showed a difference between quantitative and qualitative analysis regarding the role of WACC and real conditions. The WACC value in a company does not always reflect the actual conditions, so WACC cannot be used as the only indicator of company sustainability.

Although COC is a crucial factor affecting overall firm value, its influence may vary depending on the firm's industry. With the population taken being all companies in ASEAN, each company has different characteristics, and COC, as measured by WACC, influences specific companies. However, WACC is not relevant to companies in other industries. Different industries also have different access to capital markets; companies in established industries generally have easier and lower funding costs than companies in new or high-risk industries. This is related to the time the company is listed (Listed Year) and can affect COC and firm value. In addition to the differences in characteristics in



each company included in this study's population, other factors can affect firm value besides COC.

In his research, Kamela (2021) stated that the company's condition cannot only be measured by COC, but other factors also affect the company's value. Although WACC can be used as an indicator, it is not the only measure to determine company value. Firm value is influenced by various factors other than COC. **Table 6** summarises other supporting factors that can affect firm value besides COC.

**Table 6.** Other factors that affect Firm Value

Factors that support	Definition	Source
<b>Profitability</b>	Profitability is a company's ability to generate profits from utilising its assets. It illustrates the company's efficiency in using available resources to generate profits.	(Ambarwati et al., 2021)
<b>Good Corporate Governance (GCG)</b>	GCG is a set of processes, habits, policies, rules and institutions that influence how a company or corporation is directed, managed and supervised.	(Ambarwati et al., 2021)
<b>Capital Structure</b>	Capital structure is the long-term financing chosen by the company, including long-term debt, preferred stock, and equity, measured as the debt and equity ratio to the company's total capital.	(Rasyid et al., 2022); (Santiani, 2018)
<b>Company Liquidity</b>	Liquidity refers to a company's ability to meet its short-term obligations promptly.	(Ambarwati et al., 2021); (Jessica & Rasyid, 2021)
<b>Dividend Policy</b>	Dividend policy relates to decisions regarding whether the profits earned by the company will be distributed to shareholders in the form of dividends or kept as retained earnings.	(Jessica & Rashid, 2021); (Yuliana, 2020)

**Table 6** shows that several other factors can support firm value besides COC. While COC is important for investors, other aspects, such as profitability, also play a role in determining firm value. As measured by *Return on Asset* (ROA), profitability shows the company's efficiency in generating profits from its total assets. Companies with high ROA tend to be more profitable and attractive to investors. (Ambarwati et al., 2021). Profitability affects investors' *required rate of return*, which is a component of COC. Therefore, companies must consider both factors in financial and investment decisions to increase firm value. In this study, COC does not affect firm value; this can be a factor that the company's ROA is low, so the *required rate of return* is also low, affecting the calculation of COC.

Good Corporate Governance (GCG) is the second-factor affecting firm value. GCG is a corporate governance practice that aims to build a good and harmonious relationship between all interested parties in the company (investors, management, and board of directors). The main objective of GCG is to protect the interests of shareholders and

ensure that the company applies the principles of GCG, namely, *Fairness, Transparency, Accountability, and Responsibility* (Ambarwati et al., 2021). GCG implementation can improve the company's reputation and investor confidence. By adopting GCG principles, companies are committed to protecting investors' interests. As a result, the company's market value and share price have the potential to increase.

Good Corporate Governance (GCG) prevents and reduces an organisation's fraud risk. Strong GCG provides internal benefits to an organisation in preventing and reducing the risk of fraud and significantly impacts investor perceptions and decisions. Investors prefer investing in companies with good governance, which gives them confidence, reduces risk, and provides higher long-term value. GCG is a guideline that regulates relationships with parties interested in maintaining good corporate governance. GCG is also considered important for a company's operational success, encouraging a healthy business environment and increasing investor interest and confidence in investing, ultimately impacting the cost of capital and equity.

Firm value can also be influenced by the third factor, namely capital structure. According to capital structure theory, corporate capital policy is important in determining the optimal structure to maximise firm value (Rasyid et al., 2022). A good and optimal capital structure for a company, which consists of a combination of capital, equity, and debt, can maximise stock prices (Santiani, 2018). The proper capital structure can help optimise the company's cost of capital. Judicious use of debt can lower the cost of capital because debt generally has a lower interest rate than equity. Thus, companies can increase their value by implementing an efficient capital structure.

Liquidity is another important factor affecting firm value: the company's ability to settle short-term obligations or pay debts in completing current assets. The higher the company's liquidity level, the better its ability to pay debts so that its cash flow runs smoothly. This gives a good impression and positively signals investors, affecting the company's value. (Ambarwati et al., 2021; Jessica & Rasyid, 2021). Liquidity is crucial in determining COC; companies with high liquidity can manage their operations efficiently, impacting COC. This study shows that COC performance does not affect firm value, possibly due to the company's liquidity level.

The company's ability to pay dividends is one factor affecting the stock price, which indicates that the company's value is increasing. Dividends are part of the profits given to investors in proportion to the number of shares owned by the company. A dividend policy is usually a company's financial decision about whether the profits earned will be distributed to shareholders or kept as retained earnings. (Jessica & Rasyid, 2021; Yuliana, 2020). Investors like a certain level of return on their investment, so corporate dividends are seen as a positive signal for investors to invest their capital. Companies that pay dividends attract investors so that they can increase the value of the company.

Information regarding this cost of capital research results carries out the *signalling* theory. The COC factor proves that it is not the only determining factor for increasing company value; this is a signal for investors as a consideration in decision-making. The increase in company value has many other factors that support COC; as explained above, it is also a signal for investors to see and analyse other factors to prove whether the company is good and safe to invest in.

This research differs from previous research in that including more data or a more updated sample can provide more representative and valid results through the Thomson





Reuters datastream. The shortcoming of this study is that it does not use control variables to support that changes that occur in the dependent variable (observed variable) are caused by changes in the independent variable (manipulated variable), not by other uncontrollable factors.

## CONCLUSION

This study examines the role of *Environmental, Social, and Governance* (ESG) and *Cost of Capital* (COC) on firm value. The total sample observed was 920 from 184 companies from 2018 to 2022; the sample selected companies with ESG scores from the Eikon Revinitif *database*. This research period was chosen from 2018 to 2022 because one year before this period, there was an increase in the use of ESG in companies in various countries, proving what influence ESG has on firm value.

The results of testing the first hypothesis are positive and significant, meaning that ESG influences firm value. This study proves that ESG has a positive impact on firm value. ESG is considered important for firm value from an investor's perspective. These results align with previous research (Y. Li et al., 2018; Melinda & Wardhani, 2020; Nekhili et al., 2021; Prabawati & Rahmawati, 2022). The results of regression testing on the second hypothesis COC does not affect firm value. This research aligns with previous researchers (Kamela, 2021); (Zhukov, 2018). This states that COC cannot be used as the only indicator of company sustainability; other factors affect company value.

This study provides implications for companies; namely, management can develop and pay attention to ESG aspects as part of a business strategy to increase company value. The implementation of ESG in companies can provide positive signals to investors. Hence, the implication is that ESG can be used to attract investor interest and expand the shareholder base. In addition, this study also provides implications for companies, stating that company management must understand the impact of COC on firm value and integrate it into more informative decision-making. The implication of COC research for investors is that paying attention to other factors when assessing companies when making investment decisions is necessary.

This study has several limitations, so improvements are needed for future research. First, this study did not use control variables to maintain the stability of the research results. Future research can use control variables affecting research results, such as Firm Size, Listed Years, or Financial Leverage. Second, this study has a low R-Square value of 0.018 or 1.820 per cent, which indicates that the existing independent variables can only explain a small part of the dependent variable. Future researchers can add independent variables to the model to help explain more variation in the dependent variable, such as Ownership Structure or Profitability variables.

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