

# Analysis of the Impact of Sustainable Growth Rate and ESG Risk Score on the Valuation of Listed Companies on Indonesia Stock Exchange

Bayu Ramadhan\*, Dini Rosdini, & Indri Yuliafitri

Universitas Padjadjaran, Jl. Japati No.4, Kec. Sadang Serang, Kel. Coblong District, Kota Bandung, Jawa Barat 40133, Indonesia

## Abstract

The purpose of this study is to ascertain how the ESG Risk Score (ESG RS) and Sustainable Growth Rate (SGR) affect the value of companies that are listed on the Indonesia Stock Exchange. Through statistical analysis of secondary data of ESG RS and SGR processed from audited financial reports available on the Indonesia Stock Exchange, the study uses a descriptive and verificative methodology. 825 listed companies that are actively trading on the IDX between 2019 and 2022 make up the research's population. As for the sample size, it consists of 32 businesses that were chosen using the purposive sampling technique. This study uses STATA 14 for data analysis in order to compute the outcomes of the autocorrelation, heteroskedasticity, fixed panel model, and random effect model tests. According to the research investigation, the impact of SGR and ESG RS on firm valuation is not statistically significant. The study's conclusion is that, over the 2019–2022 timeframe, companies listed on the Indonesia Stock Exchange continuously scored higher on the ESG Risk Score when SGR and ESG RS were present, despite a small but beneficial influence. The results show that a company's valuation is positively impacted by strong financial performance, as measured by SGR. However, even if the Sustainability Report discloses that ESG RC is a quality indicator of ESG Risk Management and is used to track the advancement of SDG and ESG programs in the Indonesian capital market, it has not yet significantly impacted the evaluation of corporate valuation. These findings provide insightful information that will help the Financial Services Authority, the Indonesia Stock Exchange, and businesses better understand and assess how these aspects can contribute to and support the development of SDG and ESG in Indonesia.

*Keywords:* Sustainable Growth Rate; ESG Risk Score; Valuation;

Received: 24 October 2023

Revised: 3 February 2024

Accepted: 24 February 2024

## 1. Introduction

As part of a national development program that is in line with the Sustainable Development Goals (SDG), Indonesia has developed some creative projects. The Indonesia Stock Exchange actively supports Indonesia's efforts to create value in line with SDG principles as a Self-Regulated entity or as an entity applying regulatory power in the capital market industry. The Indonesia Stock Exchange (IDX) has committed to implementing open business practices and revealing the contributions made by listed firms on the IDX to address Environmental, Social, and Governance (ESG) issues by joining the Sustainable Stock Exchange (SSE) on April 18, 2019.

In order to maintain the sustainability of their business, listed firms need a management platform to handle problems or risks related to ESG (Environmental, Social, and Governance). According to (Chairani & Siregar, 2021), risk management significantly improves both business value and financial performance. Furthermore, consistent and favorable financial performance is necessary to guarantee the longevity of an issuer's operation. To achieve sustained company growth for issuers, it is imperative to consider the Sustainable Growth Rate and its mediating role in the impact of fixed asset growth rate on corporate value, as noted by (Listiani & Supramono, 2020).

The Indonesia Stock Exchange (IDX) measures the ESG Risk Score, which is published annually and available through the IDX website or the Morningstar Sustainalytics website, in order to give issuers an overview of ESG (Environmental, Social, and Governance) Risk Management. This collaboration is carried out in conjunction with Morningstar

\* Corresponding author.

E-mail address: bayu.syigma@gmail.com

Sustainalytics. Without a doubt, the public's access to the ESG Risk Score data is advantageous, especially for investors who may use it to evaluate issuers' ESG risk management practices.

## 2. Literature Review

The Indonesia Stock Exchange (IDX) is receiving assistance from a number of organizations in promoting education and awareness on the SDGs, sustainable finance, and the ESG RS. Among them is the Indonesia Financial Services Authority / Otoritas Jasa Keuangan (OJK), which issues Sustainability Reporting (SR) regulations. Furthermore, a guidance on developing SR that complies with OJK standards is published by the Global Reporting Initiative (GRI) in association with CDP Worldwide.

### 2.1 Signaling Theory

The Signalling Theory describes how a firm's valuation study, which is carried out by analysing its financial data, helps investors decide whether to make new investments in the company or remove existing ones. Investors gain from the Signalling Theory's ability to distinguish between businesses that effectively run their operations and adapt to changing market conditions by receiving signals of superior performance based on financial results. Strong financial performance, in the opinion of (Brigham & Ehrhardt, 2017), sends favourable signals to investors about the business prospects, motivating them to hold onto their stock and consider other options like using debt outside of the capital structure. On the other hand, a weak financial performance indicates bad business prospects, which leads investors to sell their stocks and be prepared to lose money alongside the company.

### 2.2 Shariah Enterprise Theory

One of the core ideas of Shariah compliance and Islamic company governance is the Shariah Enterprise Theory. The Fundamentals of Shariah Enterprise Theory (Triyuwono, 2015) states that an organization's first duty is to Allah, with additional responsibilities to mankind and the environment following suit. The idea behind this theory is derived from premises that have transcendental and religious qualities, in addition to being an extension of the corporate responsibility idea. Slamet told on (Triyuwono, 2015) that the Principles of Shariah Enterprise Theory, in which stakeholders are tasked with managing resources and allocating them fairly to all living things on Earth.

The Shariah Enterprise Theory is a management model derived from the concepts of the Zakat Metaphor and the Amanah Metaphor. Furthermore, (Triyuwono, 2015) explains that in the Zakat Metaphor, an organization's orientation toward profit or stakeholders is no longer suitable for Shariah-based companies. Instead, these companies adopt a Zakat-oriented model that focuses on environmental preservation, stakeholders, and the Divine.

The company's goal is to realize Zakat as much as possible, both materially and in terms of value, according to its Zakat orientation. As a result, zakat becomes the yardstick for evaluating a company's performance in terms of both material and spiritual (or ethical) aspects, rather than net profit. Moreover, the emphasis on stakeholders and the environment suggests that the Shariah Enterprise Theory and Shariah accounting are about allocating "well-being" to stakeholders and the natural world.

As a result, the Shariah Enterprise Theory is a fundamental idea that supports the application of business operations governed by human authority while also addressing issues with economic, social, and governance dimensions.

### 2.3 ESG Risk Score

The ESG Risk Score is one of the metrics used by businesses to evaluate their environmental, social, and governance risks. Morningstar Sustainalytics conducts this evaluation. As stated by (Antunes et al., 2023), this indicates that businesses with an ESG Risk Score are more likely to experience fluctuations in their financial performance. The data summaries used in the ESG Risk Score calculation are derived from Sustainability Report (SR). While evaluating ESG in the Sustainability Report, Morningstar Sustainalytics was extremely critical of ESG research, analysis, and reporting, as well as company kelola worldwide (Sustainalytics, 2021).

Morningstar Sustainalytics explains that the ESG Risk Score is an indicator measuring the extent to which a company's economic risk is influenced by environmental, social, and corporate governance factors, or how much ESG risk is not managed by the company. The evaluation of a company's ESG Risk involves quantitative scores and risk categories.

The quantitative score reflects unmanaged risk units, where lower values indicate unmanaged risks. Unmanaged risks are measured on an open-ended scale ranging from zero (no risk) to a maximum score below 50. Based on these quantitative scores, companies are classified into five risk categories: Negligible (Score 0 - 10), Low (Score 10 - 20), Medium (Score 20 - 30), High (Score 30 - 40), and Severe (Score > 40). These risk categories are absolute, meaning the assessment of 'high risk' reflects the level of unmanaged ESG risk proportionate across all sub-industries. Comparisons of ESG risk across sub-industries can be measured through the ESG Risk Score. Therefore, assessing the ESG Risk Score in ESG Reporting can provide an overview of the economic valuation of the company by evaluating how effectively the issuer implements ESG programs.

#### 2.4 Sustainability Growth Rate (SGR)

SGR is one financial analysis that may be used to monitor the performance of emitters throughout the running of the SDG program and the emission of the Sustainability Finance program. According to (Robinson et al., 2015), this is a measure of the company's growth rate that is based on its profitability (measured as ROE) and ability to change its own name based on internal savings (measured as retention ratio). Therefore, SGR corrections in Indonesian stock exchanges can be used to correct economic growth spurts when the ESG program is implemented during business cycles that are run by emissions.

#### 2.5 Valuation

In financial analysis or financial research, Tobin's Q method is used as a tool to calculate "Marginal Q" assists those who use financial data to respond to business strategy recommendations. This is based on the lab-based profit (Sudiyatno & Puspitasari, 2010). Therefore, Tobin's Q Ratio is a process that can assist users of financial information in evaluating the value of companies listed on the IDX. The result on calculation of Tobin's Q the provides information on the company's contribution to the benefit or return that is expected by stockholders.

Through the process of financial analysis of Tobin's Q, the calculation conducted by analyzing the Market Value of Firm's Equity (MVS). In the calculation of this ratio, Market Value of Shares (MVS) is computed based on the market value of all outstanding shares, then summed with the total debt. The resulting sum is then compared to the total asset value to obtain the Tobin's Q ratio.

#### 2.6 Research Formula

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Remarks:

- Y = Firm's Valuation
- a = Constant
- $\beta$  (1, 2) = Regression Coefficient
- X1 = Sustainability Growth Rate (SGR)
- X2 = ESG Risk Score (ESG RS)
- e = Standard Error / Disturbance Variable

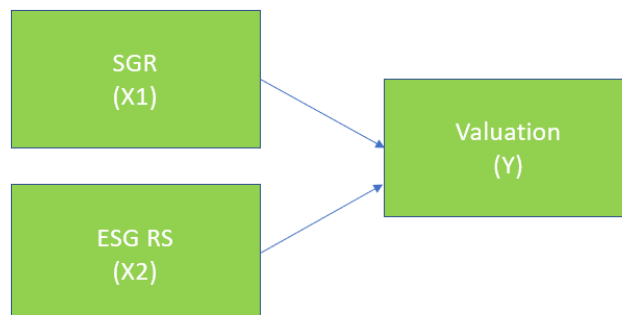


Figure 1. Research Model

### 3. Research Method and Materials

A quality scientific research requires planning and execution stages in accordance with the established direction and objectives of the research. In the context of this study, the research method will be implemented using a descriptive and approach of verification. The descriptive approach aims to provide an explanation of the valuation of shares of companies listed on the Indonesia Stock Exchange, which have also been evaluated using the ESG Risk Score published by Morningstar Sustainalytics. Meanwhile, the approach of verification will be used to identify and explain the relationship between ESG Risk Score and SGR through hypothesis testing.

In this research, the sampling technique used is purposive sampling method, where 32 companies selected as samples consistently distributed dividends during the period 2019-2022 (which is a component used in the calculation of retention ratio and SGR) and assessed ESG Risk Rating. The positive signal of the retention ratio indicates to shareholders the positive business growth and the ability to distribute dividends to shareholders as an effort towards SDG development in Indonesia. It is related with the explanation of (Brigham & Ehrhardt, 2017) regarding investors' reactions to good financial performance signal positive business prospects, directing investors to avoid selling stocks and instead pursue alternative strategies to increase capital, such as utilizing debt outside the capital structure. The data used in this research are quantitative data obtained from ESG Risk Score and financial reports of companies acquired from the Indonesia Stock Exchange. The operationalization of variables can be seen in Table 1.

This research employs Fixed Effect and involves processing descriptive statistical data, hypothesis testing, as well as simultaneous testing and determinant coefficient testing. As mentioned by (Ghozali, 2013), the advantages of Fixed Effect Method, it can differentiate individual effects and time effects, and this method does not require assuming that error components are uncorrelated with independent variables. Hypothesis testing is used to explain the direction of the relationship between dependent and independent variables. Hypothesis testing is done by examining the probability values and t-statistics. For probability values and p-value with alpha 5%, if it is < 0.05, the value is considered significant. The table value for alpha 5% is 1.96. The T-test is used to observe the influence of each independent variable on the dependent variable, and the F-test is used to see if both independent variables collectively affect the dependent variable.

**Table 1.** Operational Variable Table

No.	Variable Table	Indicator	Scale
1.	SGR (X1)	$SGR = ROE \times (1 - \text{Retention Ratio})$	Ratio
2	ESG Risk Score (X2)	The ESG Risk Score is obtained from the Indonesia Stock Exchange, with the data being published in April after the Audited Financial Statements are disclosed. 1. Negligible : Score 0 - 10 2. Low : Score 10 - 20 3. Medium : Score 20 - 30 4. High : Score 30 - 40 5. Severe : Score > 40	Interval
3.	Firm Valuation (Y)	Valuation is obtained through the processing of data in the Audited Financial Statements, which are published after the ESG Risk Score is available on the IDX: $q = (MVS + D)/TA$  MVS = Market value of all outstanding shares as of the date of the audited financial statements after the ESG Risk Score is issued by the IDX. D = Debt as of the date of the audited financial	Ratio

No.	Variable Table	Indicator	Scale
		statements after the ESG RS is issued by the IDX. TA = Firm's assets as of the date of the audited financial statements after the ESG RS is issued by the IDX.	

Source: Results of the Author's analysis.

## 4. Results and Discussion

### 4.1. Result

The Fixed Effect model is employed when we assume that the characteristics of issuers from each entity or group influence the regressors. For example, macroeconomic data collected across multiple countries over time. There might be strong reasons to believe that the economic performance of a country could be influenced by its internal characteristics: the type of government, political environment, cultural characteristics, types of public policies, and others.

The Random Effect model is used when there is reason to believe that issuer characteristics do not influence the regression (are uncorrelated). To statistically determine whether to use the Fixed or Random model, a Hausman test is conducted (Greene, 2003).

**Table 2.** Results of Model Testing

	---- Coefficients ----			
	(b)	(B)	(b-B)	sqrt(diag(Vb-V_B))
SGR	.1203545	.3351251	-.2147706	.0331284
ESG Risk Score	.0507319	-.1251013	.1758332	.064243

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

The null hypothesis of the Hausman test is that it is not a random effect. If the Prob>chi2 result is <0.05, then use the Fixed Effect; in the Hausman test, it appears that Prob>chi2 <0.05, so the model used is the Fixed Effect Model.

For the Fixed Effect model, we need to conduct a heteroskedasticity test. The null hypothesis is homoskedasticity (or constant variance).

Modified Wald test for groupwise heteroskedasticity

in fixed effect regression model

H0:  $\sigma(i)^2 = \sigma^2$  for all i

chi2 (32) = 5.5e+05

Prob>chi2 = 0.0000

The Prob>chi2 value is < 0.05, so we reject the null hypothesis, indicating that the model contains heteroskedasticity issues.

Serial correlation testing is applicable for macro panels with long time series (more than 20 or 30 years). It is not a problem for micro panels (with a very short time). To test for autocorrelation, the following test is conducted:

Wooldridge test for autocorrelation in panel data

H0: no first-order autocorrelation

F (1, 31) = 100.178

Prob > F = 0.0000

The Prob>F value is < 0.05, so we reject the null hypothesis, indicating that the model contains autocorrelation issues.

To address the heteroskedasticity problem, robust processing is performed to obtain the results (Table 3).

#### 4.2. Discussion

Based on the explanations provided, it can be concluded that SGR has a positive influence on valuation. This is consistent with what was stated by (Listiani & Supramono, 2020) that SGR has a positive effect on valuation and firm value. Meanwhile, the ESG Risk Score has a positive impact on valuation. This is in line with what was conveyed by (Rastogi & Singh, 2022) that research shows a positive influence of ESG Score on bank valuation. An increase in ESG Risk Score by one point will increase Tobin's Q by 0.0507 percent. Furthermore, an increase in SGR will increase Tobin's Q by 0.120 percent. Although the study encompasses various variables, some other factors that may affect valuation were not included. These factors could be the subject of further research.

**Table 3.** Robustness Test Table

Variables	Tobins Q
SGR	0.120 (0.105)
ESG Risk Score	0.0507 (0.0384)
Constant	1.192 (2.102)
Observations	128
Number of Listed Company	32
R-Squared	0.084

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### 5. Conclusion

In this study, SGR and ESG RS serve as dependent variables, with SGR and ESG RS showing statistically insignificant influences. The research concludes that there is a positive yet statistically insignificant influence of the two tested factors, namely SGR and ESG RS, on the valuation of companies listed on IDX. The study indicates that good financial performance through SGR positively contributes to increasing the company's valuation. ESG RS also provides a positive contribution to enhancing the company's valuation. The research results could raise criticism regarding the role of ESG RS in the development of SDGs in Indonesia. Further actions or regulations by IDX or OJK may be necessary for issuers with high ESG RC while maintaining financial performance and increasing valuation, ensuring that SDG programs can proceed as intended. These results provide important insights for the Indonesia Stock Exchange, the Financial Services Authority, and listed companies to understand and critically evaluate how these factors can play an optimal role in line with the development of SDG and ESG.

#### References

- Antunes, J., Wanke, P., Fonseca, T., & Tan, Y. (2023). Do ESG Risk Scores Influence Financial Distress? Evidence from a Dynamic NDEA Approach. *Sustainability (Switzerland)*, 15(9). <https://doi.org/10.3390/su15097560>
- Brigham, E. F., & Ehrhardt, M. C. (2017). *Financial Management Theory & Practice* (pp. 620–621).
- Chairani, C., & Siregar, S. V. (2021). The effect of enterprise risk management on financial performance and firm value: the role of environmental, social and governance performance. *Meditari Accountancy Research*, 29(3), 647–670. <https://doi.org/10.1108/MEDAR-09-2019-0549>
- Ghozali, I. (2013). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi*.
- Greene, W. H. (2003). *Econometric analysis*. Prentice Hall.
- Listiani, N., & Supramono, S. (2020). *Sustainable Growth Rate: Between Fixed Asset Growth and Firm Value*. <https://www.ceeol.com/search/article-detail?id=872944>

- Rastogi, S., & Singh, K. (2022). The impact of ESG on the bank valuation: evidence of moderation by ICT. *Journal of Global Responsibility*. <https://doi.org/10.1108/JGR-07-2022-0075>
- Robinson, T. R., Henry, E., Pirie, W. L., & Broihahn, M. A. (2015). *International Financial Statement Analysis* (3rd ed.). John Wiley & Sons, Inc.
- Sudiyatno, B., & Puspitasari, E. (2010). TOBIN'S Q DAN ALTMAN Z-SCORE SEBAGAI INDIKATOR PENGUKURAN KINERJA PERUSAHAAN. *Kajian Akuntansi*, 2, 9–21.
- Sustainalytics. (2021). *ESG Risk Ratings - Methodology Abstract* (2nd ed.).
- Triuwono, I. (2015). *Akuntansi Syariah: Perspektif, Metodologi, dan Teori* (Vol. 4). PT RajaGrafindo Persada.