The Impact of ESG Disclosure Score on Firm Value: Empirical Evidence From ESG Listed Company in Indonesia Stock Exchange

Nyoman Gede Prawira Negara*, Gos Ishak, and Raden Ervin Agung Priambodo

ABSTRACT

The trend in ESG investment was responded to by the Indonesia Stock Exchange, which released four ESG indexes. ESG indexes consist of the companies that have a better concern in ESG. Each ESG index has its positive or negative performance compared to the combined stock index. This research aims to determine the impact of ESG Disclosure on firm value. The sample of this research covers 55 companies that have been listed in the ESG index in the 2017–2021 period. The data is collected from the Bloomberg database and processed with a panel data regression model using Stata 17. The finding of this research is that there is a positive but no significant impact between the ESG Disclosure Score and firm value. This finding will contribute to the previous study about the disclosure information of non-financial information and its impact on the firm’s value in the market.

Keywords: ESG, ESG disclosure score, ESG index, firm value.

1. Introduction

Environmental, Social, and Government (ESG) Investment has become a worldwide trend that attracts companies, investors, and regulators. The concept of ESG investment is concerned not only with financial factors but also non-financial aspects. The ESG investment is also believed to be low risk, more sustainable, and promising growth in the long-term period. Indonesia Stock Exchange (IDX), in response to the ESG investment trend, has released four ESG-labeled indexes to measure the ESG-listed company market value. The four ESG labeled index are IDX ESG Leader (IDXESGL), ESG Sector Leaders IDX KEHATI (ESGKEHATI), ESG Quality 45 IDX KEHATI (ESGQKEHATI), and SRI-KEHATI. Fig. 1 shows the performance of the ESG labeled index in the 2017–2022 period.

Compared to the combined value of the listed firms on the Indonesia Stock Exchange (IHSG) with 31.28% growth, SRI-KEHATI and ESGSKEHATI have better performance with 31.44% and 38.48% growth, respectively. ESGQKEHATI and IDXSGL indexes have lower performance, with 29.62% and 17.87% growth, respectively. Indonesia Stock Exchange is cooperating with the KEHATI organization to define the company listed in SRI-KEHATI, ESGSKEHATI, and ESGQKEHATI. On the other hand, the Indonesia Stock Exchange is cooperating with Sustainalytics for the IDXESGL index.

Research has been conducted to investigate the firm’s value in the market. Aboud and Diab (2018) find that ESG-listed companies have a higher firm value than all listed companies in the Egyptian stock market. From the financial perspective, Giese et al. (2019) also conclude that a company with a strong ESG profile tends to have a high market valuation due to its lower cost of capital and risk. This finding also aligned with the research from Azaro et al. (2020) that the company’s financial performance becomes a determinant of firm value in the market. From the non-financial perspective, Constantinescu et al. (2021) conclude that non-financial information also contributes to investment decisions.

The different performance among the ESG labeled index became the driver of this research to identify the relationship between the ESG and firm value. Most research suggests a positive result between ESG and firm value but not in the specific scope of ESG-listed companies in Indonesia. The findings in this research will contribute to the ESG knowledge, especially in the correlation with the firm value.
2. Literature Review

Signaling theory suggests that the sender and recipient should give the information to meet the equilibrium level (Spence, 1973). Inspired by this theory, Yuan (2015) finds that a better quality of information disclosure will increase the firm value and investor’s confidence. Li et al. (2023) also find that ESG factors like social and environment are more impactful than other non-financial factors information on firm value.

Previous research has been done on the effect of ESG Disclosure on firm value. On a region or country basis, Yoon et al. (2018) investigated the relationship between KOSPI and KOSDAQ-indexed companies on the Korean Stock Exchange, resulting in a positive and significant effect between the ESG practice disclosure and firm value. This similar effect also occurred in US S&P 500 listed companies, which enhanced the company’s positive image due to the high disclosure of ESG (Alareeni & Hamdan, 2020). Zhou et al. (2022) also find a positive relationship between ESG Performance and market value in Chinese Listed companies. The opposite result is also mentioned in several countries. Landi and Sciarelli (2019) find a negative and non-significant relationship between ESG and company market performance in Italy, although managers are improving their ESG practice. The same result happened in Latin America, with a negative relationship between ESG Score and financial performance (Duque-Grisales & Aguilera-Caracuel, 2021).

The impact on the industry has also been researched widely. For the travel and tourism industry at the global level, Ionescu et al. (2019) find a negative impact between environment and social score on market value. Abdi et al. (2022), focusing on the airline industry, find a positive relationship between ESG score and firm value. Feng and Wu (2023) also found a positive relationship in the real estate industry. Ersoy et al. (2022) find a U-shaped relationship between ESG score and bank market value in the banking sectors. This relationship indicates that the ESG practice increases the market value and then begins to decrease at a certain point. The summary of the literature is shown in Table I. Supporting the signaling theory and literature review, the hypothesis for this research is proposed below.

$H_1$: There is a positive relationship between the ESG disclosure and firm value.

This research also included other determinants of firm value as a control variable to calculate the impact of ESG disclosure. The determinants are profitability, leverage, and total assets (Hermuningsih, 2014; Toni & Silvia, 2021). Fig. 2 shows the conceptual framework for this research.

### Table I: Summary of Literature Review

<table>
<thead>
<tr>
<th>Study</th>
<th>ESG score reference</th>
<th>Sample</th>
<th>Period</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landi and Sciarelli</td>
<td>Standard ethics agency</td>
<td>47 listed firm in Italian FTSE MIB</td>
<td>2007–2015</td>
<td>Negative</td>
</tr>
<tr>
<td>Duque-Grisales and Aguilera-Caracuel (2021)</td>
<td>Thomson reuters Eikon database</td>
<td>104 listed firm in Brazil, Colombia, Chile, Mexico, and Peru</td>
<td>2011–2015</td>
<td>Negative</td>
</tr>
<tr>
<td>Ionescu et al. (2019)</td>
<td>Dow Jones sustainability index</td>
<td>73 travel and tourism listed firm worldwide</td>
<td>2010–2015</td>
<td>Negative</td>
</tr>
<tr>
<td>Abdi et al. (2022)</td>
<td>Thomson reuters Eikon database</td>
<td>38 airlines listed firm worldwide</td>
<td>2009–2019</td>
<td>Positive</td>
</tr>
<tr>
<td>Feng and Wu (2023)</td>
<td>Global real estate sustainability benchmark (GRESB)</td>
<td>376 listed real estate industry worldwide</td>
<td>2019–2020</td>
<td>Positive</td>
</tr>
</tbody>
</table>
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Fig. 2. Conceptual framework of the present study.

3. Methodology

The sample for this research is the company selected from the ESG index in IDX. Although 87 companies were listed in the ESG index in 2017–2022, only 55 companies have ESG disclosure data from Bloomberg. The time series was also reduced to the 2017–2021 period due to the publication of its annual and sustainability report. The combined selected company and time series period resulted in 255 observations.

This research uses Tobin’s Q to calculate the firm value in the market (FV) as a dependent variable. Together with the other researchers, Tobin’s Q helps to determine long-term company value, whether overvalued or undervalued (Yu et al., 2018). The data is acquired from the Bloomberg database. This research uses the ESG Disclosure Score (EDS) from the Bloomberg database for the independent variable. Li et al. (2018) believe that Bloomberg provides consistent criteria and an extensive database for company EDS. Another determinant of firm value is used as a control variable. Same approach with Wong et al. (2021), Profitability proxied by Return on Asset (ROA) is used as a control variable to determine the impact of ESG Disclosure on firm value. Leverage proxied by Debt-to-Equity Ratio (DER) and size proxied by the natural logarithm of the total asset (TA) is also being used aligned with the other research (Giannopoulos et al., 2022; Velte, 2017). Table II represents the summary of all variables.

To estimate the impact of independent and control variables on firm value, this research is using the Panel Data Regression Model. Stata 17 is used for data processing with the model. The model to estimate the firm value could be described in (1):

\[
FV_{it} = \beta_0 + \beta_1 EDS_{it} + \beta_2 ROA_{it} + \beta_3 DER_{it} + \beta_4 TA_{it} + \epsilon_{it} \tag{1}
\]

4. Results and Discussion

Descriptive statistics are provided in Table III. The calculated mean of FV by Tobin’s Q formula is 2.05. Calculated Tobin’s Q above one is considered overvalued in the market. Then, it represents that most of the firm value of ESG-listed companies is overvalued. The calculated mean for EDS is 41.06. The result indicated that even the ESG-listed company only discloses below 50% of the criteria provided by Bloomberg. This percentage also indicates that companies need driver and standardization to disclose their ESG-related information. The control variable, ROA, is averaging 6.03. The calculated ROA above 5% is considered good and represents most companies generating profit efficiently. The other control variables for DER and TA are 76.34 and 138 billion rupiah. DER below 100% is less risky because the company’s equity could repay the total debt.

The next analysis will determine the best-suited regression model for panel data. Lagrange-Multiplier, Chow, and Hausmann tests are used to determine the model between Pooled Least Square (PLS), Fixed Effect (FE), and Random Effect (RE). The result indicated that FE is the best estimating model for the panel data. Shapiro-Wilk test indicated that panel data has a normality issue. Winsorized panel data in the 10th and 90th percentiles will correct this problem. The next step is testing the panel data for correlation and multicollinearity. All variables have no multicollinearity issue with a variance inflation factor (VIF) below 10. Table IV shows the correlation between variables. There is no correlation between EDS and FV. Otherwise, ROA and FV are highly correlated. The positive sign indicates that increasing ROA also increases FV’s value. DER also correlated with the FV and ROA but in a negative sign. This indicates that increasing DER would decrease FV and ROA. Another variable worth mentioning is TA. TA is positively correlated with EDS and DER but negatively correlated with FV and ROA.

Further analysis resulted in the heteroskedasticity and autocorrelation issue in panel data. For this occurrence, FE with robust correction is used to estimate the regression model. The result of the regression model is presented in Table V, with EDS coefficient 0.001 and P > 0.822. This finding indicates that the EDS has a positive but insignificant impact on firm value. The insignificant impact occurred because the companies may already have a high level of transparency despite having disclosure for ESG criteria. This finding also aligned with the findings about the disclosure of non-financial reports (Wahl et al., 2020). From the investor’s perspective, the lack of standardization makes them hesitate to use the ESG disclosure as

<table>
<thead>
<tr>
<th>Type</th>
<th>Variable</th>
<th>Formula</th>
<th>Reference</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent</td>
<td>FV</td>
<td>Tobin’s Q = (market cap + total liabilities + preferred equity + minority interest)/Total asset</td>
<td>Bloomberg</td>
<td>Yu et al. (2018)</td>
</tr>
<tr>
<td>Independent</td>
<td>EDS</td>
<td>ESG disclosure score</td>
<td>Bloomberg</td>
<td>Li et al. (2018)</td>
</tr>
<tr>
<td>Control</td>
<td>ROA</td>
<td>ROA = net income/total asset</td>
<td>Annual report</td>
<td>Wong et al. (2021)</td>
</tr>
<tr>
<td></td>
<td>DER</td>
<td>Debt to Equity Ratio. DER = total debt/total equity</td>
<td>Annual report</td>
<td>Giannopoulos et al. (2022)</td>
</tr>
<tr>
<td></td>
<td>TA</td>
<td>Total Asset. TA = ln(Total asset)</td>
<td>Annual report</td>
<td>Velte (2017)</td>
</tr>
</tbody>
</table>
an investment decision criterion (Dincă et al., 2022). The positive sign supports signaling theory and accepts H1. Qureshi et al. (2020) believe that ESG disclosure will promote a company’s reputation and enable new growth opportunities. This implication will improve the company’s business value. Another control variable is also worth mentioning. ROA as a proxy for profitability positively and significantly impacts firm value. Other researchers also find the same result for ROA (Hastuti & Carolina, 2022; Izfs, 2020). The result indicates that profitability is the primary factor in investment decision-making. Another control variable, DER, and TA, have a negative sign. Increasing DER and TA would eventually decrease the firm value in the market. Nurwulandari (2021) concludes that leverage is related to risk; high leverage indicates that the company also has high-risk exposure. In terms of size, Atan et al. (2018) suggest that small companies are more valuable because of their potential in the future.

Notably, the R-squared value is at 0.368, and Prob > F is below 0.001. This result indicates that overall independent variables affect the firm value significantly at 36%. This means that other determinants could still affect the firm’s value in the market. Based on the calculated result, the determined model between the FV and EDS is given in (2):

\[
FV_{it} = 11.05 + 0.001 \times EDS + 0.06 \times ROA - 0.001 \times DER - 0.54 \times TA
\]

TABLE V: FE with ROBUST CORRECTION Regression Result

<table>
<thead>
<tr>
<th>FV</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>t</th>
<th>P &gt; t</th>
<th>R-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS</td>
<td>0.0010999</td>
<td>0.0048496</td>
<td>0.230</td>
<td>0.822</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.00161467</td>
<td>0.0126999</td>
<td>4.850</td>
<td>0.000***</td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>-0.0017924</td>
<td>0.0018833</td>
<td>0.950</td>
<td>0.345</td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>-0.548727</td>
<td>0.297717</td>
<td>1.840</td>
<td>0.071</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>11.05815</td>
<td>5.093023</td>
<td>2.170</td>
<td>0.034*</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p < 0.05, **p < 0.01, ***p < 0.001.

5. Conclusion and Recommendation

This research aims to investigate the impact of ESG disclosure on firm value. The samples are from the Indonesia Stock Exchange ESG listed company in the 2017–2021 period. Fixed effect robust correction panel data regression analysis is used to estimate the model with Tobin’s Q as the proxy of firm value. The other determinants, like ROA, DER, and Total Assets, are used as control variables.

The result is that ESG disclosure has a positive but insignificant impact on firm value. This result indicates that companies with high ESG disclosure already have good information transparency regarding their financial and non-financial aspects. Different standardization with ESG disclosure criteria within independent organizations also influences the non-significant result. Mentioning the control variable, ROA, as a proxy of profitability positively and significantly impacts firm value. This finding indicates that profitability remains the main factor for investment decisions.

The findings in this research justify managers allocating their resources to attract investors, whether focusing on financial or non-financial performance. For the policymakers, this finding provides evidence to standardize the ESG disclosure criteria and drive a company to be more concerned about sustainable policy. This research also contributes to the signaling theory and ESG literature researched worldwide. The limitation of this research is the differentiation of references about the ESG disclosure score. Indonesia Stock Exchange has already cooperated with the KEHATI organization and Sustainalytics to select an ESG index member. The usage of the Bloomberg database is due to limitations in ESG disclosure data from both organizations. Further research should consider the disclosure index from the related organization in a specific ESG index. Widely related practices about ESG also could be an interesting topic for research in terms of its impact on company performance.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

REFERENCES


