



The Influence of ESG on Return on Asset ASEAN Companies 2013-2023

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Abstract: In the last few decades, sustainability issues have received increasing attention among stakeholders in their business operations. Although many studies have examined the influence of ESG on the financial performance of companies in various regions, specific research that focuses on companies in ASEAN is still limited. Studies that directly link each Pillar Score and ESG Combine Score with ROA are still rare. This research offers a new contribution by providing a comprehensive analysis of the influence of each ESG pillar and ESG Combine Score on ROA in the ASEAN region. This research aims to analyze the influence of the Environmental Pillar Score, Social Pillar Score, Governance Pillar Score, and ESG Combined Score on ROA in ASEAN public companies 2013-2023. The research uses a quantitative approach with multiple linear regression analysis to evaluate the relationship between ESG scores and ROA. The research results show that each Pillar Score and ESG Combine Score have a significant positive effect on ROA. The research results provide the implication that companies need to increase their focus on sustainable practices to improve financial performance. Investors can use it as a reference for considering ESG scores in investment decisions. External factors such as government policies and macroeconomic conditions can also influence research results.

Keywords: ASEAN; ESG; ROA

INTRODUCTION

The role of sustainable companies in recent years has become very important in the financial markets. Therefore, many companies adopt a sustainable approach that combines the evaluation and application of Environmental, Social, and Governance or ESG factors (Gavrillakis and Floros, 2023). Increased awareness of sustainability issues has resulted in companies disclosing more information regarding environmental, social, and governance activities (Srivastava and Anand, 2023). Some studies mainly investigate the influence of environmental, social, and governance on corporate performance in developed countries where markets have matured, and investors are aware of corporate social responsibility activities. Research in developing countries such as ASEAN is still rare (Makhdalena et al., 2023).

According to Eccles, Ioannou, and Serafeim (2014), ESG practices are increasingly influencing corporate behavior and strategy. Companies that adopt strong ESG policies are proven to have better stock market performance and profitability, including ROA. A study by Kim and Li (2021) found that ESG factors overall have a positive impact on company profitability, including Return on Assets (ROA). This research notes that of the three ESG pillars, corporate governance has the most significant influence on ROA, especially in companies with weak governance.

Furthermore, research conducted by the NYU Stern Center for Sustainable Business (2021) also confirmed these findings. In this report, more than 50% of the studies reviewed showed a positive relationship between ESG practices and financial performance, including ROA. This report highlights that companies with high ESG scores tend to have better financial performance compared to companies with low ESG scores.

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Stakeholder theory describes which parties the company is responsible for (Freeman et al, 1984). Stakeholder theory is generally related to the methods used by companies to manage their stakeholders (Gray et al, 1995). Signaling theory was developed and attempted to be able to answer several main questions related to company policy, for example, dividend policy (Spence, 1973), capital structure decisions (Ross, 1977), and presentation or voluntary disclosure of information (Ross, 1979). Thus, it can be concluded that stakeholder theory refers to management's need to pay attention to interested parties in the company. Meanwhile, signaling theory explains how companies send information signals, including company performance signals, to interested parties.

ESG is part of a company's non-financial indicators, including sustainability, ethics, and corporate governance issues. Therefore, companies are increasingly emphasizing efforts to improve and publish their ESG ratings (Halid et al., 2023). ESG scores are an innovative method for evaluating a company's activities. ESG scores do not focus on financial reporting, which is commonly used by investors and managers when making decisions (Halid et al., 2023). Bloomberg is the world's leading provider of business and financial information. When it comes to ESG rankings, the company has a team of professional analysts covering multiple companies and multiple data sources. It is authorized to use the ESG data disclosed by them (Cai et al., 2023).

A good score for the Environmental Pillar is above 60 on a scale of 0 to 100. Companies with a score above 60 demonstrate strong performance in managing their environmental impacts and tend to have better climate change mitigation strategies (Serafeim, G., 2020). A good social score is usually above 60. This shows that the company has a strong commitment to socially responsible practices, such as employee welfare and good community relations (Vogel. D., 2005).

Companies with a governance score above 60 are considered to have a good governance structure. This includes aspects such as transparency, accountability, and solid anti-corruption practices (Bebchuk et al., 2009). A good ESG composite score is usually above 60. Companies with this score demonstrate good performance in integrating environmental, social, and governance aspects into their business operations. (Friede et al., 2015). Thus, it can be concluded that ESG scores are used to evaluate environmental, social, and governance performance. A good score is above 60 for each pillar score and the combined score.

Return on Assets Profitability affects company value. Management must pay attention to internal factors or company micro factors (including profitability) and macroeconomic factors to increase company value (Pangestuti, DC, Muktiyanto, A., Geraldina, I., Darmawan, 2022). ROA is an important indicator for investors and managers in assessing the company's overall performance. ROA not only helps in assessing the effectiveness of asset use but also in identifying potential improvements in operational efficiency (Brigham and Houston, 2019). ROA that is above 5% indicates that the company is quite efficient in managing its assets to generate profits (Brealey et al., 2011). ROA above 5% can be considered a good performance indicator, especially when compared to the industry average (Modigliani, F., & Miller, M.H., 1958). Thus it can be concluded that Return on Assets (ROA) is a profitability ratio that is calculated by dividing net profit by total assets. In general, a good ROA is above 5%, this shows the company's efficiency in generating profits from the assets it owns or provides an idea of management's effectiveness in using company assets.

The research model can be presented in the following picture:

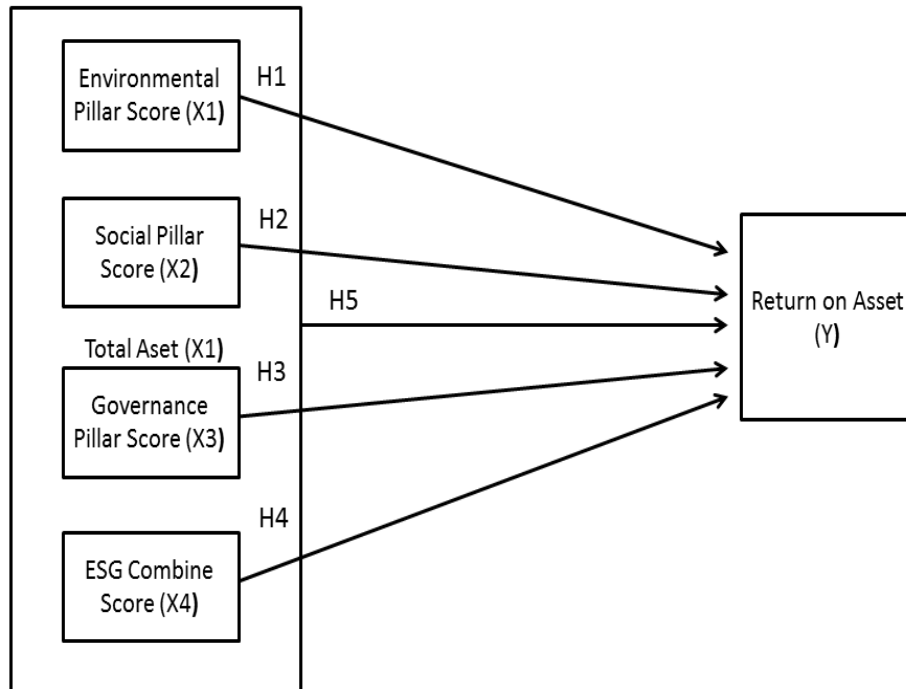


Figure 1. Research Model
Source: Processed data (2024)

The research hypothesis is as follows:

- H1: Environmental Pillar Score partially has a positive effect on Return on Assets.
- H2: Social Pillar Score partially has a positive effect on Return on Assets.
- H3: Governance Score partially has a positive effect on Return on Assets.
- H4: ESG Combine Score partially has a positive effect on Return on Assets
- H5: Environmental Pillar Score, Social Pillar Score, Governance Score, and ESG Combine Score, simultaneously influence Return on Assets.

METHODS

This research is quantitative research. According to Creswell (2014), Quantitative research is an approach used to test certain theories by examining the relationships between variables. These variables are measured with research instruments that produce numerical data that can be analyzed with statistical procedures. The data collection technique used in this research is unbalanced panel data, which is a method often used in economic research and financial management to analyze data that is incomplete or has different observations for each unit of analysis within a certain period of time.



The research population is public companies listed on the stock exchanges in each ASEAN country. The samples were selected using a purposive technique with the criteria of companies having the availability of data required for research for 2013-2023 so that 99 research samples were obtained which can be presented in the following table:

Table 1. Research Sample

No	Country	Date of Joining ASEAN	Name of Stock Exchange	Sample
1	Indonesia	8 Agustus 1967	Bursa Efek Indonesia (BEI)	30
2	Thailand	8 Agustus 1967	The Stock Exchange of Thailand (SET)	22
3	Filipina	8 Agustus 1967	Philippine Stock Exchange (PSE)	8
4	Singapura	8 Agustus 1967	Singapore Exchange (SGX)	24
5	Malaysia	8 Agustus 1967	Kuala Lumpur Stock Exchange (KLSE)	12
6	Brunei	8 Januari 1984	n/a	-
7	Vietnam	28 Juli 1995	Hanoi Securities Trading Center (Hanoi STC)	3
8	Laos	23 Juli 1997	Lao Securities eXchange (LSX)	-
9	Myanmar	23 Juli 1997	Yangon Stock Exchange (YSE)	-
10	Kamboja	30 April 1999	Cambodia Securities Exchange (CSE)	-
11	Timor Leste	11 November 2022	n/a	-
Total				99

Source: Processed data (2024)

The data that has been collected will then be tested and analyzed using data analysis techniques, to obtain answers to the specified research questions, as follows:

Multiple Linear Regression; The main goal of multiple linear regression is to understand how the dependent variable changes when one or more independent variables are changed, while other independent variables remain constant. Wooldridge (2019) explains that multiple linear regression allows researchers to control variables that can influence the dependent variable other than the main independent variable being studied. It provides a powerful way to identify cause-and-effect relationships in observational data. The linear regression equation in this research is as follows:



$$ROA = \beta_0 + \beta_1 \text{Environmental Pillar Score} + \beta_2 \text{Social Pillar Score} \\ + \beta_3 \text{Governance Pillar Score} + \beta_4 \text{ESG Combine Score} + \epsilon$$

Information:

β_0 : intercept

β_1 : Regression Coefficient for *Environmental Pillar Score Variable* (X1)

β_2 : *Social Variable Regression Coefficient Pillar Score* (X2)

β_3 : *G Score Variable Regression Coefficient* (X3)

β_4 : Regression Coefficient for *ESG Combined Score Variables* (X4)

ϵ : *error term (error)*

Data is processed using the Eviews program. Griffiths, WE, Hill, RC, and. Lim, GC, (2019) explained that Eviews is a very useful tool for carrying out multiple regression analysis on unbalanced panel data. Unbalanced panel data occurs when the number of observations is not the same for each entity across time periods.

Classic assumption test; Classical assumption tests need to be carried out to detect and correct potential problems in the model. Wooldridge (2019) explains that testing classical assumptions is very important in multiple linear regression to ensure the accuracy and validity of the model. Classic assumption tests, including residual normality, heteroscedasticity, and multicollinearity tests, help in determining whether the model meets the required assumptions. Violation of these assumptions can result in biased and inefficient estimates.

Hypothesis Testing (t-test and F test); The t-test provides guidance on the statistical significance of each predictor in the regression model. The F test is used to test the overall significance of the regression model, with the null hypothesis that all regression coefficients are equal to zero simultaneously. This helps in determining whether there is a linear relationship between the dependent and independent variables in the model. Wooldridge, JM, (2019) explains that the t-test and F-test are fundamental tools in regression analysis. The t-test is used to test the hypothesis that an individual parameter is different from zero, which allows the researcher to assess the statistical significance of the independent variable. The F test is used to evaluate the overall significance of the model, testing whether at least one of the independent variables has a significant effect on the dependent variable.

Coefficient of Determination; Wooldridge (2019) emphasized that the coefficient of determination is one of the main indicators in assessing the quality and suitability of a regression model. However, he also warned that a high R-squared value does not always indicate a good model, because it could be that the model is too overfitting.



RESULTS AND DISCUSSION

The results of the Chow test, Hausman test, and Lagrange-Multiplier test to select three models consisting of the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM), obtained the following results:

Table 2. Resume Chow Test, Hausman Test, LM Test

Test	Results	Conclusion
Chow	The random cross-section probability (P) value is 0.0000, meaning the p value < 0.0	The selected model is the Fixed Effect Model (FEM)
Hausman	The random cross-section probability (P) value is 0.0887, meaning the p value is > 0.05	The selected model is the Random Effect Model (REM)
L.M	The Breusch-Pagan probability value is 0.0000, meaning the value is <0.05	choose the Random Effect Model (REM) model.

Source: Processed data (2024)

So, based on the results of the three tests above, it can be concluded that the best model is the Random Effect Model (REM). This means that the next analysis for this case will use the Random Effect Model, as the model that is considered appropriate, as follows:



Table 3. Selected Model Random Effect Model

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	8.892040	0.934543	9.514851	0.0000
X1	0.000139	0.010838	3.012794	0.0098
X2	0.003528	0.010606	3.332626	0.0095
X3	0.073203	0.030362	4.411028	0.0000
X4	0.031754	0.024241	5.309907	0.0006
Effects Specification				
			elementary school	Rho
Random cross-section			5.508817	0.6260
Idiosyncratic random			4.257635	0.3740
Weighted Statistics				
R-squared	0.611969	Mean dependent var		1.755690
Adjusted R-squared	0.607320	SD dependent var		4.330491
SE of regression	4.297346	Sum squared resid		15697.10
F-statistic	5.574329	Durbin-Watson stat		0.987864
Prob(F-statistic)	0.006459			
Unweighted Statistics				
R-squared	-0.018238	Mean dependent var		6.971217
Sum squared resid	42375.43	Durbin-Watson stat		0.365934

Source: Processed data (2024)

The results of the normality test show that the probability of bark fall is 0.479168, where the value is above 0.05, which indicates that the residual is normally distributed, as follows:

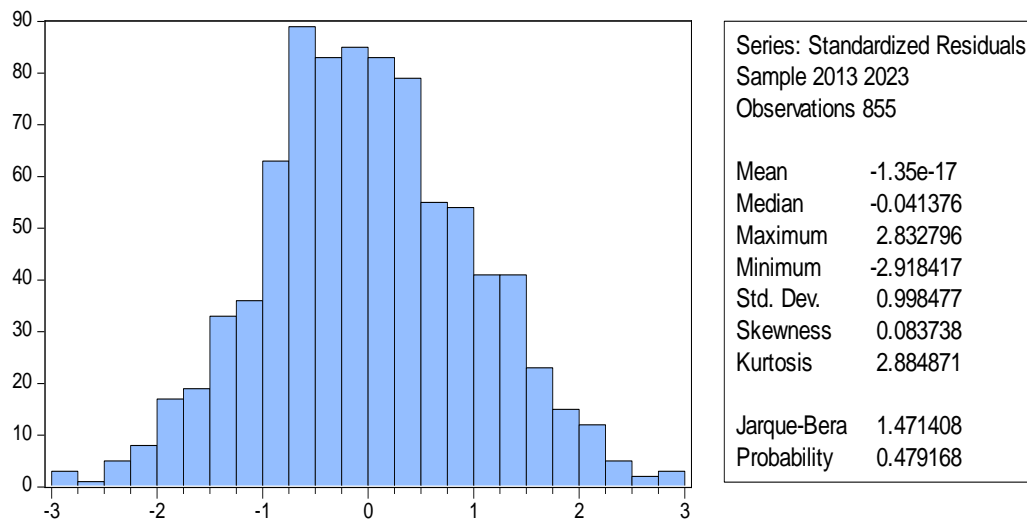


Figure 2. Normality Test Results

Source: Processed data (2024)

The results of the multicollinearity test show that the correlation value between the independent variables is not greater than 0.8, so it can be said that there are no symptoms of multicollinearity, as follows:

Table 4. Multicollinearity Test Results

	X1	X2	X3	X4
X1	1	0.68302249	0.42215741	0.74498286
X2	0.68302249	1	0.32438361	0.71447537
X3	0.42215741	0.32438361	1	0.52559656
X4	0.74498286	0.71447537	0.52559656	1

Source: Processed data (2024)

Based on Table 3 regarding the Selected Random Effect Model above, the regression equation can be obtained as follows:

$$ROA = 8.892040 + 0.000139 + 0.0035282 + 0.0073203 + 0.031754 + \epsilon$$



Where:

The constant value of 8.892040 indicates that the ROA value will be 8.892040% if all dependent variables are constant. The regression coefficient value X_2 is 0.003528, indicating that if the Social Pillar Score increases by 1 unit, the ROA value will increase by 0.003528%, where the other dependent variables are constant. The regression coefficient value X_4 is 0.031754, indicating that if the ESG Combine Score increases by 1 unit, the ROA value will increase by 0.031754%, where the other dependent variables are constant.

Based on Table 3 regarding the Selected Random Effect Model above, the t-test results show the following:

- H1 accepted; Environmental Pillar Score has a positive effect on ROA, where the probability value is 0.0098 < significance value 0.05.
- H2 accepted; Social Pillar Score has a positive effect on ROA, where the probability value is 0.0095 < significance value 0.05.
- H3 accepted; Governance Pillar Score has a positive effect on ROA, where the probability value is 0.0000 < significance value 0.05.
- H4 accepted; ESG Combine Score has a positive effect on ROA, where the probability value is 0.0006 < significance value 0.05.

Based on Table 3 regarding the Selected Random Effect Model above, the Prob (F-Statistic) value is 0.006459 < 0.05, so it can be interpreted that the Environmental Pillar Score, Social Pillar Score, Governance Pillar Score, and ESG Combined Score have a simultaneous effect on Return. On Assets.

Based on table 3 regarding the Selected Random Effect Model above, shows that the Adjusted R-squared is 0.607320. This shows that the simultaneous influence of the Environmental Pillar Score, Social Pillar Score, Governance Pillar Score, and ESG combined score variables on the ROA variable is 60.73%.

H1 accepted; Environmental Pillar Score partially has a positive effect on ROA

Companies with high environmental scores tend to have more efficient practices in resource and energy management. For example, the use of renewable energy and efficient technology can reduce operational costs, increase asset efficiency, and ultimately increase ROA. Effective waste management and reduced emissions can also reduce regulatory costs and the risk of environmental penalties, which can reduce company profits. Companies with a strong commitment to environmental sustainability tend to have a better reputation in the eyes of investors, customers, and other stakeholders. A good reputation can increase sales and customer loyalty, which in turn increases ROA.

The results of this research support the results of previous research, including; Environmental components have a positive effect on company performance (Makhdalena et al., 2023). The environmental pillar shows a positive impact on company performance. These results show that carrying out environmentally related activities and disclosing them has been proven to improve company performance in developing country companies in ASEAN (Gavrilakis and Floros, 2023).



The results of this research also support stakeholder theory and signaling theory. The company's openness regarding Environmental Pillar Score information fulfills the rights of stakeholders and at the same time gives a signal to them to be aware of the company's implementation of the environmental pillar, which for investors is very important as one of the bases for determining their investment policies. Companies are not entities that only operate for their own interests but provide benefits to stakeholders (Ghozali and Chariri, 2007). The idea that better environmental performance can increase the market value of a company by signaling its integrity capacity raises an interesting question: what happens if this signal conflicts with other signals that, although not related to the company's environmental performance (Kim, 2020)?

H2 accepted; Social Pillar Score partially has a positive effect on ROA

Companies with a high Social Pillar Score reflect that they have good workforce policies, such as employee welfare programs, attractive remuneration programs, structured training programs, and gender equality. Thus, all stakeholders have high loyalty and are committed to being able to help increase productivity and operational efficiency. Superior stakeholder performance, collectively will ultimately increase the company's ROA. Strong corporate social responsibility practices, such as charitable activities, contributions to local communities, and transparency in interactions with stakeholders, can also enhance a company's reputation. A good reputation can attract more loyal consumers and increase revenue, which has a positive impact on ROA.

The results of this research are in line with the results of several previous studies, including that the social component has a positive effect on company performance. The positive influence of ESG disclosure on company performance. ESG (Makhdalena et al., 2023). The social pillar shows a positive impact on company performance (Gavrilakis and Floros, 2023). The results of this research also support *stakeholder theory* and *signal theory*. The company's openness to *Social Pillar Score information* fulfills the rights of *stakeholders* and at the same time gives them the opportunity to also know about the implementation of the environmental pillars carried out by the company, which for investors is very important as one of the bases for determining their investment policies.

A company is not an entity that only operates for its own interests but provides benefits to *stakeholders* (Ghozali and Chariri, 2007). The survival of the company depends on support from *stakeholders* so the company's activities are to seek that support (Gray et al, 1995). Companies must be able to maintain their relationships with *stakeholders*, by accommodating the desires and needs of *stakeholders*, especially *stakeholders* who have *power* over the availability of resources used for the company's operational activities, for example, labor, markets for company products, and so on (Ghozali and Chariri, 2007). *Signaling theory* was developed and attempted to be able to answer several main questions related to company policy (Spence, 1973) where social practices are one of the signals that must be informed.

H3 accepted; Governance Pillar Score partially has a positive effect on ROA

Companies with a high Governance Pillar Score tend to have a strong supervisory structure and an effective risk management system. Clear policies and transparency in financial reporting increase investor confidence and reduce the cost of capital. This can increase operational efficiency and company ROA. Good governance includes regulatory compliance and high levels of ethics in business practices.



The results of this research are in line with the results of several previous studies, including; ESG, in the long term, will build effective governance and increase shareholder value in developing countries (Makhdalena et al., 2023). The company's openness regarding Governance Pillar Score information fulfills the rights of stakeholders and at the same time provides them with the opportunity to learn about the implementation of the governance pillars carried out by the company, which for investors is very important as one of the bases for determining their investment policies.

Companies are not entities that only operate for their own interests but provide benefits to stakeholders (Ghozali and Chariri, 2007). The governance pillar shows a positive impact on company performance. These results show that carrying out environmentally related activities and disclosing them has been proven to improve company performance in developing country companies in ASEAN (Gavrilakis and Floros, 2023). Improved governance pillars lead to higher market value and financial efficiency.

Therefore, company efforts to improve the governance dimension will result in higher market value and returns on invested funds (Abdi et al, 2020). *Signaling theory* was developed and attempted to be able to answer several main questions related to company policy (Spence, 1973) where aspects of corporate governance are one of the signals that must be informed.

H4 accepted; ESG Combine Score partially has a positive effect on ROA

Companies with high scores in the ESG Combine Score tend to adopt comprehensive and sustainable environmental, social, and governance practices, such as reducing resource consumption and negative environmental impacts. For example, investments in green technology or energy efficiency can improve operational efficiency and ROA.

Meanwhile, in the social aspect, for example implementing inclusive work policies or positive social contributions, so that can improve the company's reputation and influence consumer preferences. A good reputation can strengthen consumer loyalty and support increasing ROA. Aspects of good governance in ESG include transparency, accountability, and a strong risk management structure.

The results of this research are in line with the results of several previous studies, including; The three pillars of ESG, namely environmental, social, and governance, show a positive impact on company performance. These results show that carrying out activities related to the environment, social, and corporate governance and disclosing them has proven to improve company performance in developing country companies in ASEAN (Gavrilakis and Floros, 2023). A higher ESG score increases a company's value. ESG companies show a higher increase in company value compared to lower company value ESG companies (Srivastava, A., and Anand, 2023).

ESG, in the long term, will build effective governance and increase shareholder value in developing countries (Makhdalena et al., 2023). ESG factors as a whole have a positive impact on company profitability, including Return on Assets (ROA). This research notes that of the three ESG pillars, corporate governance (governance) has the most significant influence on ROA, especially in companies with weak governance (Kim and Li, 2021). ESG performance collectively maximizes financial performance, including ROA. This research concludes that companies that increase non-financial performance disclosure in the capital market will increase the opportunity for growth in the company's financial performance indicators (Al Amosh et al., 2023).



Implementing good ESG policies not only improves a company's reputation but also contributes to improving overall financial performance, including ROA. This research uses panel data from 324 companies in the non-financial sector and finds that each ESG pillar has a significant impact on ROA, with the strongest effect coming from the governance pillar (Liu, et al., 2023). The results of this research also support stakeholder theory and signal theory.

The company's openness regarding Environmental Pillar Score information fulfills the rights of stakeholders and at the same time gives them the opportunity to also know about the implementation of the environmental pillars carried out by the company, which for investors is very important as one of the bases for determining their investment policies. Companies are not entities that only operate for their own interests but provide benefits to stakeholders (Ghozali and Chariri, 2007). The survival of the company depends on support from stakeholders so the company's activities are to seek that support (Gray et al, 1995).

ESG improvements are attractive to stakeholders because openness allows companies to minimize information asymmetry between the company and its stakeholders and improve its performance (Gavrilakis and Floros, 2023). The idea that better environmental performance can increase the market value of a company by signaling its integrity capacity raises an interesting question: what happens if this signal conflicts with other signals that, although not related to the company's environmental performance (Kim, 2020)?

H5 accepted; that the Environmental Pillar Score, Social Pillar Score, Governance Pillar Score, and ESG Combined Score, simultaneously have a positive effect on ROA

The research results show that the three ESG pillars and the ESG Combined Score simultaneously have a significant influence on ROA. This shows that companies with high ESG scores tend to have better financial performance. Good environmental management, strong social relations, and effective governance can improve operational efficiency and company reputation, which ultimately contributes positively to ROA. This research adds empirical evidence regarding the importance of ESG in improving a company's financial performance.

The results of this research are supported by other research that confirms similar findings, where the integration of ESG practices in company operations can improve financial performance. Atan, R., Alam, MM, Said, J., & Zamri, M., (2021) in their journal entitled "The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies". This journal examines the impact of ESG factors on company performance in Malaysia. Using panel data from companies listed on Bursa Malaysia, this research finds that environmental, social, and governance (ESG) factors significantly influence company performance.

The analysis results show that companies with higher ESG scores tend to have better Return on Assets (ROA). This indicates that companies that are more committed to sustainability and social responsibility have better financial performance, supporting the argument that good ESG practices can improve operational efficiency and corporate reputation, as well as reduce business risks.



Buallay, A. (2019) in his journal entitled "Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector". This research explores the relationship between sustainability reporting (ESG) and financial performance in the European banking sector. Using data from various banks in Europe, this research shows that there is a positive relationship between ESG reporting and bank financial performance, measured by Return on Assets (ROA). Banks that actively report on their sustainability practices tend to have better financial performance. These findings show that transparency and commitment to sustainability can increase investor and stakeholder confidence, and lead to better performance.

Friede, G., Busch, T., & Bassen, A. (2015) in their journal entitled "ESG and financial performance: Aggregated evidence from more than 2000 empirical studies". The journal collects and analyzes more than 2000 empirical studies to investigate the relationship between ESG factors and financial performance. Analysis shows that around 90% of these studies find a positive relationship between ESG and financial performance. This research provides strong evidence that ESG factors have a positive influence on financial performance, including ROA. These findings confirm that companies that integrate ESG factors in their operations tend to have better financial performance in the long term, strengthening the argument that investments in sustainability can provide financial returns. Khan, M., Serafeim, G., & Yoon, A. (2016) in his journal entitled "Corporate sustainability: First evidence on materiality".

This research examines the impact of the materiality of sustainability factors on company performance. Using data from companies in the United States, this research shows that material sustainability factors have a significant positive influence on company financial performance, including ROA. Material sustainability factors are factors that are relevant and important for the company's business operations and its stakeholders. These findings suggest that companies that focus on material sustainability factors can improve their financial performance, reduce risk, and create long-term value for shareholders.

Thus, the results of this study and other related studies, confirm that ESG factors play an important role in improving corporate financial performance and provide a strong argument for companies to integrate sustainability practices in their operations. It is hoped that these results will encourage more companies to adopt good ESG practices, in order to achieve better and more sustainable performance.

CONCLUSION

Environmental Pillar Score has a partially positive effect on Return on Assets (ROA). Companies with high environmental scores tend to have more efficient practices in resource and energy management. For example, the use of renewable energy and efficient technology can reduce operational costs, increase asset efficiency, and ultimately increase ROA. Social Pillar Score partially has a positive effect on ROA. Companies with a high Social Pillar Score reflect that they have good workforce policies, such as employee welfare programs, attractive remuneration programs, structured training programs, and gender equality. Thus, all stakeholders have high loyalty and are committed to being able to help increase productivity and operational efficiency. Superior stakeholder performance, collectively will ultimately increase the company's ROA. The Governance Pillar Score partially has a positive effect on ROA. Companies with a high



Governance Pillar Score tend to have a strong supervisory structure and an effective risk management system. Clear policies and transparency in financial reporting increase investor confidence and reduce the cost of capital. This can increase operational efficiency and company ROA. ESG Combine Score partially has a positive effect on ROA. Companies with high scores in the ESG Combine Score tend to adopt comprehensive and sustainable environmental, social, and governance practices, such as reducing resource consumption and negative environmental impacts. For example, investments in green technology or energy efficiency can improve operational efficiency and ROA. Meanwhile, in the social aspect, for example implementing inclusive work policies or positive social contributions, so that can improve the company's reputation and influence consumer preferences. A good reputation can strengthen consumer loyalty and support increasing ROA. Aspects of good governance in ESG include transparency, accountability, and a strong risk management structure. Environmental Pillar Score, Social Pillar Score, Governance Pillar Score, and ESG Combined Score simultaneously influence ROA. This shows that companies that seriously integrate ESG factors in their business strategy will gain significant financial benefits, increasing profitability and company value in the long term. Environmentally friendly practices increase operational efficiency and reduce environmental costs, while concern for social aspects such as relationships with communities and human rights increases stakeholder trust. Good corporate governance increases investor confidence and reduces financial risks. The overall integration of ESG practices creates synergies that improve operational efficiency, risk management, and reputation, resulting in higher ROA.

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