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# The Influence of Environment, Social and Governance (ESG) Activities on Bank Performance in ASEAN

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## Abstract

This study aims to determine the effect of environmental, social, and governance activities on bank performance in ASEAN. Indication of bank performance measurement can be seen from Return on Asset (ROA). Meanwhile, the measurement of environmental, social, and governance activities is done through environmental scores, social scores, and governance scores. This type of research is descriptive quantitative, which is descriptive research with a quantitative approach. The data used in this research is secondary data for the period 2018- 2022 which comes from the Refinitiv website. The analysis method used is panel data regression analysis. The results showed that environmental activities had a negative and insignificant effect on bank performance. Social activities have a negative and significant effect on bank performance. Governance activities have a negative and insignificant effect on bank performance.

Keywords: ESG; Environment; Social; Governance; Return on Asset

## 1. Introduction

Global climate change has become one of the major challenges of this century, with increasingly visible and serious impacts on the environment. According to [1], the Earth's average temperature has increased by about 1°C since the pre-industrial era in 2015. This temperature rise is largely due to human activities, particularly the burning of fossil fuels, which produce large amounts of greenhouse gas emissions. One of the major consequences of global warming is the increasing frequency and intensity of forest fires, which form a “climate-fire feedback loop” that exacerbates overall climate change [2]. This phenomenon was the main driver for the birth of the Sustainable Development Goals (SDGs) endorsed by the United Nations in 2015. One sector that plays a crucial role in achieving the SDGs is the financial sector, especially banking. Although it does not directly pollute the environment like the manufacturing industry, the banking sector acts as a provider of funds for various economic activities, including those that have a negative impact on the environment. In Indonesia, the Sustainable Finance Reform Overview report highlights the fact that many banks extend credit without considering the legality and sustainability of the debtor's business activities, indicating a gap between scientific standards and sustainability rules and empirical banking practices.

To bridge the gap, various initiatives have been undertaken. The Financial Services Authority (OJK) has launched the Sustainable Finance Roadmap as well as regulations such as POJK No.60/POJK.04/2017 on Green Bonds, which was later updated to POJK No.18/POJK.04/2023 on ESG Bonds. These regulatory changes show that the social and governance dimensions, in addition to the environment, are becoming a major concern in sustainable finance. However, despite regulatory encouragement and incentives from the authorities, the implementation of Environment, Social, and Governance (ESG) principles in bank activities has yet to show consistent results on bank performance, both operationally and financially.

This gap is also evident from various previous research results. Some studies show that ESG has a positive impact on firm performance [3] and [4], but other studies such as [5] show a non-linear relationship, where excessive ESG activities may experience marginal impairment effects. This difference in results reflects the uncertainty of the relationship between ESG activities and bank performance, as well as the importance of regional context in analyzing the impact of ESG.

In the ASEAN context, where the level of economic development and ESG adoption varies significantly across countries, the study of the effect of ESG activities on bank performance is highly relevant. Moreover, the banking sector in the region is in a transition period towards more sustainable financial practices.

Based on this phenomenon, this study aims to analyze the effect of Environment, Social, and Governance activities on bank performance in ASEAN. This research is expected to provide an empirical understanding of the effectiveness of the application of ESG principles in the banking sector in the ASEAN region and enrich the literature on the relationship between sustainability and financial performance in the context of developing countries.

## 2. Literature Review

### 2.1. Environment, Social, and Governance (ESG)

Environment, Social, and Governance (ESG) are the three main pillars in evaluating the sustainability and ethical impact of a business entity on society and the environment. ESG is not just a complementary instrument to corporate social responsibility, but has become a key reference for investors, regulators and stakeholders in assessing the company's long-term prospects [6]. ESG provides a broader approach than Corporate Social Responsibility (CSR) because it includes the integration of sustainable strategies in the business decision-making process.

The Environmental dimension includes the company's policies in addressing climate change, waste management, renewable energy use, and resource efficiency. Good environmental activities indicate a company's efforts to reduce the physical and transitional risks associated with environmental degradation. These initiatives not only impact the company's reputation, but can also reduce long-term operating costs and improve efficiency [7].

The Social dimension deals with the company's relationships with employees, customers, communities and other stakeholders. Issues examined in this dimension include human rights, diversity and inclusion in the workplace, fair working conditions, and community involvement. According to [8], companies that pay attention to social aspects tend to have higher customer loyalty and employee productivity, thus contributing to business stability and sustainability.

The Governance dimension includes leadership structure, transparency, accountability, anti-corruption policies, and protection of shareholder rights. Good corporate governance creates efficient decision-making systems, adequate risk oversight, and trust from investors [9]. Weak governance is often associated with poor corporate performance, legal risks, and loss of reputation.

### 2.2. ESG and Bank Performance

Bank performance is often measured through financial indicators such as Return on Asset (ROA), Return on Equity (ROE), and operational efficiency. ROA, as an indicator used in this study, reflects the ability of bank management to generate profits from the overall assets managed [10]. In the context of ESG, the implementation of sustainability principles is expected to not only improve the reputation and competitiveness of banks, but also contribute to better financial performance through risk mitigation and increased market confidence.

ESG integration in bank activities can have direct and indirect impacts on performance. Directly, the implementation of environmentally friendly policies such as green project financing can open up new opportunities and get fiscal and non-fiscal incentives from regulators such as OJK and Bank Indonesia. Indirectly, banks that have a good ESG track record will be more trusted by investors and customers, which in turn can increase market share and net interest income.

Furthermore, ESG can also strengthen risk management in banking. For example, good internal governance monitoring reduces the likelihood of fraud and strategic errors. Meanwhile, attention to social and environmental issues lowers the likelihood of banks' involvement in financing projects that have high reputational risks.

In global practice, ESG has become a key investment standard in many countries, including developing countries such as in the ASEAN region. Therefore, understanding the relationship between ESG activities and bank performance is important in an effort to strengthen the role of the financial sector in sustainable development.

## 3. Research Method

This study uses a quantitative approach with the aim of examining the relationship between Environment, Social, and Governance (ESG) activities on bank financial performance as measured by Return on Assets (ROA). The type of data used is secondary data, namely data or information obtained from other parties, in the form of data that supports this research. The secondary data used comes from the Refinitiv website, including ESG scores (environmental, social, and governance pillars) and Return on Assets (ROA) as an indicator of financial performance. The research object includes all banks listed and active in the ASEAN region in the period 2018 to 2022. The selection of banks was carried out using purposive sampling technique, which is based on certain criteria such as the availability of complete and sequential ESG and ROA data for five years. From this process, 22 banks were obtained that were eligible to be analyzed in the study.

This study uses one dependent variable and three independent variables. The dependent variable in this study is Bank Performance as measured by Return on Asset (ROA), while the independent variables in this study are Environment (E),

Social (S), and Governance (G). The analysis used is panel data regression and the data is processed using Eviews 12. The regression model is formulated as follows:

$$ROA_{i,t} = \alpha + \beta_1 E_{i,t} + \beta_2 S_{i,t} + \beta_3 G_{i,t} + \varepsilon_{i,t}$$

Description:

- $\alpha$  : Intercept
- $\beta_1, \beta_2, \beta_3$  : Slope Koefisien Variabel
- $E_{i,t}$  : *Environment*
- $S_{i,t}$  : *Social*
- $G_{i,t}$  : *Governance*
- $\varepsilon_{i,t}$  : Error Term

### 3.1. Model Selection Test

The panel data regression model consists of three approaches, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To find out the most appropriate model, several tests are carried out. The test consists of three stages, namely the Chow Test, Hausman Test and Lagrange Multiplier Test. The following is an explanation of each model selection test:

1. Chow Test: This test determines whether CEM or FEM is more appropriate. If the cross-section chi-square value is > 0.05, the CEM is chosen. If the value is < 0.05, the FEM is chosen.
2. Hausman test: If FEM is selected in the previous step, the Hausman test is performed to compare FEM and REM. If the chi-square value is < 0.05, then FEM is used. Conversely, if the value is > 0.05, then REM is selected.
3. Lagrange Multiplier (LM) test: If CEM is selected in the Chow test, or REM in the Hausman test, then the LM test is used to confirm whether REM or CEM is more appropriate. If the chi-square value is < 0.05, then REM is selected; otherwise, CEM is used.

### 3.2. Hypothesis Test

There are three hypothesis tests carried out in this study, namely the Simultaneous Test (F Test), Partial Test (t Test), and the Coefficient of Determination Test (R-squared Test). The F test is used to determine whether the independent variables simultaneously affect the dependent variable. If the probability value (F-Statistic) < 0.05, then the independent variables simultaneously have a significant effect on the dependent variable. Conversely, if the probability value > 0.05, then the independent variables do not significantly affect the dependent variable.

The t test is conducted to measure the individual effect of each independent variable on the dependent variable. If the probability value < 0.05, then the independent variable has a significant effect on the dependent variable. However, if the probability value > 0.05, then the independent variable does not have a significant effect on the dependent variable.

The coefficient of determination (R-squared) test is used to assess the extent of the model's ability to explain variations in the dependent variable. The results depend on the coefficient of determination (R-squared) value. A small R-squared value indicates that the independent variables have limited ability to explain the dependent variable. Conversely, an R-squared value close to 1 indicates that the independent variables provide almost all the information needed to predict the variation in the dependent variable.

## 4. Results and Discussion

### 4.1. Model Selection Test

To determine which regression model is chosen between fixed effect or common effect in this study, the Chow Test is required. The following are the results of the Chow Test:

Table 1. Chow Test Result

Effect Test	Statistic	d.f	Prob.
Cross Section F	12.975546	(21.85)	0.0000
Cross Section Chi Square	158.009085	21	0.0000

Source: Researcher Processed Data

Based on the Chow test results in table 1, the Cross-section Chi-square probability value is  $0.0000 < 0.05$ . Through these results it can be concluded that the right model to use is the Fixed Effect Model (FEM) and the test can proceed to the Hausman test.

Table 2. Hausman Test Result

Effect Test	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Cross Section random	11.609724	3	0.0088

Source: Researcher Processed Data

Based on the Hausman test results in table 2, the cross-section random probability value is  $0.0088 < 0.05$ . Through these results it can be concluded that the right model to use is the Fixed Effect Model (FEM). Because it has the same results in the Chow test and Hausman test, no Lagrange Multiplier test is needed.

#### 4.2. Hypothesis Test

The t-statistic test is used to test the effect individually in the panel data regression model. This is useful in determining whether certain independent variables significantly affect the dependent variable. The results of the t-statistical test in this study can be seen in Table 3.

Table 3. Partial Test Result

Variable	Coefficient	t-Statistic	Prob.
Constant (C)	2.526786	4.920323	0.0000
Environment (X1)	-0.000113	-0.039243	0.9688
Social (X2)	-0.014918	-2.115825	0.0373
Governance (X3)	-0.003079	-0.841040	0.4027

Source: Researcher Processed Data

Based on the results of the partial test in table 3, it can be seen that the environment (X1) variable has a t value of -0.0392

$> t$  table -1.9826 with a significance value of  $0.9688 > 0.05$ , which means that the environment (X1) variable has a negative and insignificant effect on ROA (Y). Social variable (X2) has a t value of -2.1158  $< t$  table -1.9826 with a significance value of  $0.0373 < 0.05$ , which means that the social variable (X2) has a negative and significant effect on ROA (Y). The governance (X3) variable has a t value of -0.8410  $> t$  table -1.9826 with a significance value of  $0.4027 > 0.05$ , which means that the governance (X3) variable has a negative and insignificant effect on ROA (Y). The F-statistic test is used to test the overall effect of the panel data regression model. The results of the F-statistics test in this study can be seen in table 4.

Table 4. Simultaneous Test Result

F-Statistic	13.43193
Prob (F-Statistic)	0.000000

Source: Researcher Processed Data

Based on the simultaneous test results in table 4, it can be seen that the calculated F value is  $13.4319 > F$  table 2.690 with a significance level of  $0.0000 < 0.05$ , which means that simultaneously environment (X1), social (X2), and governance (X3) have a significant effect on ROA (Y). The coefficient of determination (R-squared) is a measure that describes how well the variability of the dependent variable can be explained by the panel data regression model. The results of the coefficient of determination (R-squared) in this study can be seen in table 5.

Table 5. Coefficient of Determination Result

R-squared	0.791343
Adjusted R-squared	0.732428

Source: Researcher Processed Data

Based on the results of the coefficient of determination in table 5, it can be seen that the Adjusted R-Squared value is 0.7324. This shows that the independent variables, namely environment (X1), social (X2), and governance (X3), are able to explain the dependent variable, namely ROA (Y), by 73.24%. Or it can be interpreted that the independent variables used in the model are able to explain 73.24% of the dependent variable.

## 5. Conclusions

Based on the results obtained from research on the effect of environmental, social, and governance (ESG) activities on bank performance in ASEAN using panel data regression and classical assumptions, it can be concluded as follows: Environmental activities have a negative and insignificant effect on Bank Performance (ROA) in ASEAN for the period 2018- 2022. Social activities have a negative and significant effect on Bank Performance (ROA) in ASEAN for the 2018-2022 period. Governance activities have a negative and insignificant effect on Bank Performance (ROA) in ASEAN for the 2018- 2022 period. However, environmental, social, and governance activities simultaneously have a positive and significant effect on Bank Performance (ROA) in ASEAN for the 2018-2022 period.

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