



The Effect of Environmental Social Governance (ESG) Performance and Financial Performance on Firm Value: Evidence from the Banking Sector in ASEAN

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Abstract. Company's sustainability has recently become an important goal for stakeholders as it will support financial and operational sustainability of the company. Using the stakeholder theory, which stated that a company must maintain the balance and essential matters for all company's stakeholders, this study focuses on company's sustainability. It is also expected that when a company focuses on sustainability, as represented by the Environmental Social Governance performance and financial performance, its operation becomes legitimate and profitable, increasing its firm value. This is in line with the legitimacy theory that, in running its business, a company must ensure that they operate efficiently and comply to social boundaries and norms to be more profitable and valuable. This study aims to examine whether Environmental Social Governance (ESG) performance and Financial Performance could impact the firm value. The authors employed the panel data multiple regression analysis with a data set from all banks with ESG score in the ASEAN region during 2015–2021. The firm value was then measured using Tobins' Q, while the Environmental Social Governance (ESG) performance and Financial Performance were measured using the ESG score and Return on Asset, respectively. Based on signalling theory, this study found that the Environmental Social Governance performance and financial performance will increase the firm value. Thus, it is suggested that the disclosure of the ESG score is as essential as the financial disclosure, since both disclosures will increase the value of the firm.

Keywords: Firms' Value · Environmental Social Governance (ESG) · Financial Performance · Sustainability

1 Introduction

According to the classical theory, the main purpose of a company is to maximize profits for its organization and investors. This leads companies to only focus on financial statements as a means of accountability to the shareholders [1]. argues that company's commitment to social activities can be a source of costs that reduce its competitiveness and adversely affect its financial performance and firm value. Moreover, Reyes A. [2]

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concludes that any costs incurred in the context of activities of a social character, or aiming to protect the natural environment, will likely serve as an excuse or cover for poor financial performance stemming from irrational management.

In the long run, the classical theory has caused many problems, ranging from social relations to the environmental impacts, which eventually leads decreased economic performance and even the loss of company's legitimacy. These problems certainly disrupt operations and sustainable impacts, contradicts the expectations of stakeholders towards the company, and infringe the stakeholder theory. The urgency prompted the emergence of the Triple Bottom Line (TBL) concept by Makarin, E. [3]. According to the TBL concept, sustainability means balancing people-planet-profit. Referring to this concept, companies should commit to taking responsibilities for the positive or negative impacts they cause to the economic, social, and environmental aspects.

However, there has been a shift in the definition of ethical business through the introduction of the sustainable performance concept that underlies certain conditions for measuring the value of a company. Thus, investors do not only focus on financial performance (ROA) but also look into how the company can maintain its business continuity as reported in its Sustainability Report (SR). Based on the signal theory, the issuance of financial statements and SR is expected to give a positive signal to stakeholders, which will increase the company's value as reflected in the stock price [4].

The SR carries a concept that the company has a responsibility toward consumers, employees, share-holders, communities, and the environment in all aspects of the company's operations [5]. The sustainable performance of the company (Economic, Social, Government (ESG) value) can be determined based on SR. The ESG value reflects the company's performance and its effectiveness based on the information published to the public with a higher ESG value means higher company's sustainable performance [6, 7]. As elaborated in the signal theory, it is expected that the sustainable performance information will be responded positively by the stakeholders to increase the value of the company [6–11], as well as the financial performance [12, 13], and used as a benchmark for company performance for investors.

This study used the banking sector because it requires stimulants from the financial system to achieve stability, inclusivity, and sustainability in the economic growth. This sector also plays a role on preventing the practice of funding or investing in business activities that use excessive resources, increase social inequality, and damage the environment.

2 Literature Review and Hypothesis

2.1 Signalling Theory

When investors get information, perform analyses, and conclude that the information shows a positive signal, they make investment decisions that increase the company's stock price, reflecting the firm value [14]. As stated in the signalling theory, better financial performance [12, 13] and broader SR disclosure [6–11] are expected to give a positive signal to stakeholders, which will, in turn, increase the firm value [4].

2.2 Legitimacy Theory

To reduce the legitimacy gap, a company must be able to identify activities that are under its control and the public side that has the power to provide company's legitimacy. This can be well-maintained through complying to the requirement of issuing the sustainability report [15].

2.3 Stakeholder Theory

In correlation with stakeholders theory, the sustainability report can be an instrument of control over the company's performance for stakeholders as well as a consideration in the allocation of financial resources, especially those related to the principle of responsible investment [16, 17].

2.4 ESG Performance

Companies nowadays are demanded to integrate sustainability into their operation activities. These originally stems from the Paris Agreement, often referred to as the Paris Accords (2015) or the Paris Climate Accord, which urges governments to focus on the climate and environmental activities.

To accommodate it, companies improve their activities, not only by integrating an environmental focus but also by implementing social and governance activities. Stakeholders use the ESG score or index to measure sustainability of the company's ESG performance. ESG performance in this study is defined as the ESG value that includes sustainability, ethics, and corporate governance issues. The ESG score uses these factors to evaluate companies and countries in terms of their level in the sustainability aspects (ROBECO Institutional Asset Management, 2018 in [12]). The ESG performance score is the average of the ESG pillar assessment scores and is a measure of the company's sustainable performance. The ESG value data is sourced from the Bloomberg.

The ESG performance reflects the company's ongoing performance and effectiveness based on the publicly published information. The higher the ESG score, the better the company's sustainable performance is, where, based on signal theory, it will be responded positively by investors and potential investors and ultimately increase the stock price that is equivalent with the firm value. Previous research has confirmed the positive effect of sustainable performance on firm value [6–11]. Therefore, the first hypothesis of this study is:

H1: ESG performance has a positive effect on firm value

2.5 Financial Performance

Financial performance is the company's financial condition over a certain period, which is generally analyzed using financial ratios. The analysis is useful for stakeholders to obtain information related to the company's financial condition that reflects future goals and management performance's predictions.

Financial performance that is most often highlighted is the amount of profit generated by the company in a period. High profits are considered as management achievements in

managing existing resources effectively, as well as a predictor of the future performance of the company. Furthermore, profits are more comparable using ratios. Return on assets (ROA) is the most commonly used ration. The ROA formula is:

$$ROA = \frac{Net\ income}{Total\ Asset} \times 100\% \quad (1)$$

If the return on assets (ROA) value is increasing, there is a stronger positive signal to the shareholders that management has managed company's assets well and provide better prospects in the future. Using the signal theory, this will attract investors to invest their funds, which in turn will increase the stock price. Previous studies by [12, 13] have proven the positive influence of financial performance (ROA) on firm value. Therefore, the second hypothesis is:

H2: Financial performance has a positive effect on firm value

2.6 Firm Value

Firm value is defined as the selling value of a company as an operating business [18]. In this study, the firm value is measured by Tobin's Q ratio at the end of June in the following year. The sustainability report is published several months after closing the book. Tobin's Q ratio is defined as a ratio that is reflected in the market value of the company's assets as measured by the market value of the total outstanding debt and shares of the company's asset replacement cost [19]. The formula of Tobin's Q ratio can be presented in the following equation:

$$Tobin'sQ = \frac{Total\ MV\ of\ Outstanding\ Stock + Total\ BV\ of\ Liabilities}{Total\ Book\ Value\ of\ Asset} \quad (2)$$

2.7 Control Variables

Three control variables were used in this study: ROE, CAR, and firm size. The Capital Adequacy Ratio (CAR) data were collected from notes in the annual report published by the banking sector. Meanwhile the ROE and firm size (SIZE) were measured using the following formula:

$$ROE = \frac{Net\ Income}{Total\ Equity} \times 100\%$$

$$Size = \ln(Total\ Asset) \quad (3)$$

2.8 Research Framework

The research framework employs 1 dependent variable, 2 independent variables, and 3 control variables as seen in Fig. 1.

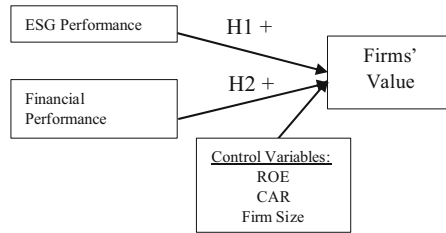


Fig. 1. Research Framework.

3 Research and Methodology

This study is a quantitative study that analyzed secondary data collected during the period of 2015–2021. Analyses performed were based on the ESG performance data from the Bloomberg, financial data from audited financial reports published by the companies, and stock prices from Yahoo Finance. Financial and sustainable reports were accessed through the Indonesia Stock Exchange (IDX) and other sites.

The unit of analysis in this study involved the banking sector in the ASEAN region which is listed on the stock exchange. Sampling was done purposively and data processing was performed using the panel data regression. Model 1 was used to test hypothesis 1 and model 2 was used to test hypothesis 2. The regression equations applied are listed below:

Model 1

$$Firms' Value = \alpha + \beta_1 ESG_{it} + \beta_2 ROE_{it} + \beta_3 CAR_{it} + \beta_4 Size_{it} + \epsilon \quad (4)$$

Model 2

$$Firms' Value = \alpha + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_3 CAR_{it} + \beta_4 Size_{it} + \epsilon \quad (5)$$

4 Results and Discussion

4.1 Characteristic Data

This study used purposive sampling techniques and annual balanced panel data from 19 commercial banks during the 2015–2021 period were included. The commercial banks analyzed in this study included 5 banks from Indonesia, 4 banks from Malaysia, 4 banks from Philippines, 3 banks from Singapore, and 3 banks from Thailand. The final sample size of the study based on the inclusion criterion of seven consecutive years was 133. Researchers conducted data processing and calculations on the sample using the Microsoft Excel and Eviews 10 as data processing tools (Table 1).

Table 1. Sample Selection.

No.	Criteria of Sample	Total
1.	Banks listed on the ASEAN Stock Exchange during 2015–2021.	121
2.	Banks with no consistent ESG Score from Bloomberg during 2015–2021.	(87)
3.	Banks which do not consistently publish their quarterly report during 2015–2021.	(15)
Total sample (Company)		19
Total sample (Year)		7
Total sample (19 × 7)		133

4.2 Descriptive Statistics

Table 2 presents the descriptive statistical data of each variable that were analyzed in this study.

The maximum value of Tobin's Q was 1.68 or 168%, which was achieved by BCA in 2018. This condition means that the investor's rate for BCA is 1.68 times higher than its total assets for the 2018 performance. The minimum value was 0.73 or 73%, which was for Thanachart Bank in 2019. This condition means that the investor rate of the Thanachart Bank was less than its total assets or, to be exact, only 0.73 times in 2019. The standard deviation of Tobin's Q was 0.14, smaller than the mean of 1.01. Therefore, it can be concluded that the distribution of the data is not too extreme. The mean value 1.01 shows that banks that consistently have ESG values during 2015–2021 were rated slightly higher by investors, 1.01 times higher to be exact than the book value of their total assets.

The maximum value of ESG was 0,61 or 61% shown by Bank of The Philippines Islands in 2021 and the minimum value was 0.28 or 28% owned by BDO in 2016. The standard deviation was 0.06, which was smaller than the mean of 0.43, so it can be concluded that the distribution of the data is not too extreme.

Table 2. Descriptive Statistics.

	TobinsQ	ESG	ROA	ROE	CAR	SIZE
Mean	1.013	0.439	0.014	0.105	0.178	29.189
Max	1.686	0.612	0.104	0.226	0.2670	35.084
Min	0.736	0.284	0.002	0.012	0.1240	25.670
Std. Dev	0.142	0.065	0.011	0.037	0.029	3.135
Obsv	133	133	133	133	133	133

The maximum value of ROA was 0.1 or 10%, demonstrated by Thanachart Bank in 2021. This shows that every THB Asset owned by Thanachart Bank generated a profit THB 10 in 2021. If we take a closer look on the 2021 performance, the investment rate of the Thanachart Bank was the highest. The minimum ROA value was 0.0020 or 0.20% shown by CIMB in 2020. This condition also indicates that all banks that have consistent ESG scores on Bloomberg during 2015–2021 have continued to generate profits despite of the 2020 Covid-19 pandemic. The standard deviation was 0.011, which was smaller than the mean of 0.014, so it can be concluded that the distribution of the data is not too extreme.

The maximum value of ROE is 0.22 or 22% owned by BRI in 2015 and the minimum value of ROE shows 0.01 owned by Bank of The Philippines Islands in 2015. The standard deviation shows a number of 0.03 which is smaller than the mean 0.10 so it can be concluded that the distribution of the data is not very extreme.

The maximum value of CAR is 0.26 or 26% owned by Bank Danamon in 2021 and the minimum value of CAR shows 0.1240 or 12.40% owned by DSB in 2015 and BDO in 2016. The standard deviation shows the number of 0.02 which is smaller than the mean 0.17. Therefore, it can be concluded that the distribution of the data is not too extreme.

The maximum value of SIZE is 35.08 owned by Bank Mandiri in 2021 equal with IDR 1,725,611,128 million and the minimum value of SIZE shows 25.67 owned by Thanachart Bank in 2020 equal with total assets THB 140,775,634,000. The standard deviation shows a number of 3.13 which is bigger than the mean 29.18. Therefore, it can be concluded that the distribution of the data is slightly extreme.

4.3 Results of Determination of Estimates and Test Classical Assumptions

Determination of estimation model was performed by Chow and Hausman test. Both tests show that the estimation model chosen is the fixed effect model. The classic assumption tests conducted show that there are no problems in autocorrelations, multicollinearity, heteroscedasticity, and normality in the research mode.

4.4 Panel Data Regression Analysis

Tables 3 and 4 present the panel data regression with fixed effect model estimation:

Based on the regression results in Table 3, the panel data regression equation model is obtained as follows:

$$Tobins\ Q = -0.01 + 0.73\ ESG + 1.1\ ROE + 1.4\ CAR + 0.01\ SIZE \quad (6)$$

Based on the regression results in Table 4, the following panel data regression equation model is obtained:

$$Tobins\ Q = 0,24 - 3,14\ ROA + 1,89\ ROE + 1,81\ CAR + 0,009\ SIZE \quad (7)$$

Table 3. Result of Model 1.

Variable	Coefficient	t-Statistic	Prob.
C	-0.017515	-0.172021	0.8637
ESG	0.737340	4.375111	0.0000 **
ROE	1.163859	4.999986	0.0000 **
CAR	1.423839	3.812647	0.0002 **
SIZE	0.011337	3.120837	0.0023 **
R-squared	0.585804		
Adjusted R-squared	0.551853		
Prob (F-statistic)	0.000000		

Table 4. Result of Model 2.

Variable	Coefficient	t-Statistic	Prob.
C	0.248674	3.310631	0.0012
ROA	-3.148337	-2.987455	0.0034 **
ROE	1.896623	6.047142	0.0000 **
CAR	1.811032	4.719045	0.0000 **
SIZE	0.009853	2.646612	0.0092 **
R-squared	0.566706		
Adjusted R-squared	0.531190		
Prob(F-statistic)	0.000000		

4.5 Determination Coefficient Test Result (R^2)

The Adjusted R-squared value in Table 3 shows that the variable ESG, ROE, CAR and SIZE are able to explain the firm value (Tobin's Q) by 55% while the other 45% is explain by other variables not examined in this study. This means that the model is statistically strong to predict the outcome. Meanwhile, Adjusted R-squared value in Table 4 shows that the variable ROA, ROE, CAR and SIZE are able to explain firm value (Tobin's Q) by 53% while the other 47% is explain by other variables not examined in this study. This means that the model is statistically strong to predict the outcome.

4.6 F Statistical Regression Test Result

The F Statistical Regression Test Result for model 1 can be seen in Table 3, showing a probability value of 0.000000, which is below the alpha significance level of 5%. This result indicates that ESG, ROE, CAR and SIZE variables simultaneously have a significant effect on Tobin's Q variable of firm value. This result provides the conclusion

that a feasible research model is used to test the existing hypotheses. Meanwhile, the F Statistical Regression Test Result for model 2 as seen in Table 4 shows a probability value of 0.000000, which is below the alpha significance level of 5%. This result indicates that ROA, ROE, CAR and SIZE variables simultaneously have significant effects on Tobin's Q variable of firm value. This result provides the conclusion that a feasible research model is used to test the existing hypotheses.

4.7 Partial Hypothesis Testing Results (t Test)

Effect of ESG Performance on Firm Value. The t-test shows that the ESG performance has a probability value of 0.0000 (<0.05), which means it is significant at the level of 5% and the coefficient is 0.737340. Therefore, it can be concluded that the ESG performance has a positive effect on firm value which is proxied by Tobin's Q. In other words, the first hypothesis is accepted. The result indicates that, according to the signal theory, investors will respond positively to the ESG performance as reflected by ESG value. The result of this study is consistent with [6–11].

Effect of Financial Performance on Firm Value (H2). The t-test shows that the ROA, which is a proxy for the financial performance, shows a probability value of 0.0000 (<0.05), meaning that it is significant at the level of 5%, albeit with a coefficient of -3.148337. Therefore, it can be concluded that financial performance has a negative effect on firm value as proxied by Tobin's Q. In other words, the second hypothesis is rejected. The result indicates that, according to the signal theory, investors will respond negatively to the company's financial performance as reflected by the ROA. The result of this study is inconsistent with [12, 13].

Effect of Control Variables on Firm Value. The t-test results in Tables 3 and 4 show that ROE, CAR, and SIZE have a probability value 0.0000 (<0.05), which means it is significant at the level of 5%. Therefore, it can be concluded that the Return on Equity, Capital Adequacy Ratio, and SIZE have a positive effect on firm value as proxied by Tobin's Q.

5 Conclusion

This study aims to identify the effect of ESG and ROA on firm value in banks listed on the ASEAN Stock Exchange in the 2015–2021 period. Data used in this study is balanced panel data with fixed-effect-model estimation. The final sample size as driven by the inclusion criteria is 133 data. The conclusion of this study is ESG performance has a positive effect on firm value. This is in line with the signal theory where investors will respond to positive signals on bank performance related to ESG. These results are also consistent with the results of research [6–11].

Meanwhile, financial performance as proxied by the ROA has a negative effect on firm value. This is not in line with the signal theory where investors will respond to positive signals on bank's financial aspects. These results are also inconsistent with the results of research [12, 13]. The implication of the results this study is that the banking management in the ASEAN region now needs to pay more attention not only to financial

aspects but also to sustainability aspects because investors do not look only on company's financial performance, but also on company's sustainability performance.

Company's sustainability performance as shown by the ESG performance consists of the environmental, social, and governance aspects that must be maintained and improved from time to time. This can be structured by integrating the ESG framework, milestones, KPIs, activities and documentation of the ESG into the company's operation. By having sustainability ESG activities, company will have solid ESG performance by third party, leading to increased firm value (bank value) for the company that, in turn, will increase the welfare of the stakehold.

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