



Is There any Effect of ESG Performance in the Improvement of Financial Risk in ASEAN-5?

Nadia Rahma^{*}, Rofikoh Rokhim

Master of Management, Department of Management, Universitas Indonesia, Jakarta, Indonesia

**Corresponding author email: nadia.rahma02@ui.ac.id*

Abstract

Public awareness in social and environmental sustainability became a challenge that turned into general assessments. ESG (Environmental, Social, Governance) performance became essential. Hence, the firm that does not apply ESG criteria in its business activities will face a consequence from investors impacting its performance, associated with financial risk. This study examines ESG performance within ESG score, ESG controversy, and BGD (Board Gender Diversity) on the total and systematic risk as a proxy for the financial risk of public companies listed on the stock exchange. This study uses a sample of 105 listed public firms from each stock exchange in ASEAN-5 (Philippines, Indonesia, Malaysia, Singapore, and Thailand) from 2016 to 2020 and applies panel regression analysis. The result suggests that ESG Score significantly influences total but not systematic risk in ASEAN-5. ESG controversy does not considerably affect total and systematic risk. BGD significantly influences total risk but not systematic risk. The findings will help investors and portfolio managers evaluate how ESG performance influences the firm's financial risk and make better investment decisions in ASEAN-5.

Keywords: ESG, Total Risk, Systematic Risk, Financial Risk, ASEAN-5, ESG Controversy, BGD

1. Introduction

Environment, Social, Governance (ESG) has become an uptrend issue worldwide. These issues are raised because of public awareness of social and environmental challenges that turn into assessment and implementation of ESG activities carried out by companies to be proved to the public (Chau et al., 2020). The people and investors are starting to realize the contribution of ESG factors to efficiency, productivity, operational improvement, and long-term risk management (Talan and Sharma, 2019). Therefore, many companies seek to apply ESG values to their processes and assets flows. The investor's refusal due to lack of commitment to environmental and social care can increase firm risk (Sassen et al., 2016).

Several researchers have found various effects of ESG on financial risk in multiple contexts (Muhammad et al., 2015; Shakil, 2021). ESG has proven to be an essential part of management to gain a more holistic understanding of risk and opportunities (Amor-Esteban et al., 2019). Another aspect of ESG that potentially affects financial risk is ESG Controversy. Aouadi dan Marsat (2018) found ESG Controversy raised because of negative news, company scandal, suspicious activities that surfaced in the media and became known to investors. Based on Shakil (2021), the emergence of backlash from investors related to ESG Controversy rising to the public will impact increasing stock volatility, hence exponentially affecting the company's financial risk.

Furthermore, ESG is the result of the company's strategic decisions. The decision on female board members becomes one of the most critical pillars in the position of stakeholders of the board to moderate the company's risk-related investment decisions. Gender diversity provides robust decision-making, leading to better performance (Al-Jaifi, 2020). Haque and Ntim (2018) explain that female board members are more effective in making decisions. They are inclined to emphasize environmental and social sustainability to get active support from shareholders to affect access to more significant resources. Therefore, females are more likely to apply ethical standards in their decision-making (Ambrose and Schminke, 1999; Pan and Sparks, 2012). Research on the Board Gender Diversity shows the direct effect of financial risk (Shakil et al., 2020; Wasiuzzaman and Wan, 2020).

The development of ESG, guided by the United Nations Sustainable Development Goals (UNSDGs) and the principles of Environmental, Social, and Corporate Governance (ESG) as a critical metric based on the 37th ASEAN Summit, has become a key metric the primary key for resilience and sustainable development in the ASEAN region. Nemoto and Morgan, (2020) found that ESG-based companies in ASEAN earned 2% higher average net profit margins than non-ESG-based companies. ASEAN's effort to improve ESG performance becomes a necessity for financial sustainability that leads to the company's risk.

Based on (Yoon et al., 2018), limited research examines the effect of ESG performance on market risk in developing countries. This study tried to fill the gap by examining the consequences of ESG performance on financial risk on all public companies in the ASEAN-5 region that is starting to catch up in the ESG aspect. Specifically, this study shows empirical result of ESG Score, ESG Controversy, and Board Gender Diversity (BGD) to firm risk.

2. Literature Review

2.1 Environmental, Social Governance (ESG)

Environment, Social, Governance (ESG) is an indicator of a company covering ethical issues, corporate governance, and sustainability. This study uses ESG research from Thomson Reuters Eikon, ESG Score as ESG performance variable. The selection of the ESG proxy is based on (Shakil, 2021) and (Tasniah et al., 2021). ESG Score is a metric score that contains the overall value of the company's sustainability performance. ESG Score consists of three pillars; (1) Environment Pillars, (2) Social Pillars, (3) Governance Pillar. Whether a firm is socially and environmentally responsible towards society is judged through the ESG score of a firm, Better ESG performance reveals the social and environmental responsibility of the firm, which lessen the information asymmetry and volatility of stock price in the market (Lueg et al., 2019; Shakil, 2021). Previous studies have found the effects of ESG on financial risk in various contexts (Muhammad et al., 2015; Shakil, 2021). Shakil (2021) explains the consequences of ESG on financial risk in the Oil and Gas Industry.

2.2 ESG Controversies

ESG Controversy is a score that measures company engagement in the news that is included in the ESG Controversy. ESG Controversy was calculated using 23 controversial ESG topics included in the company's involvement in controversial emergence in various media. Companies that experience an ESG-based scandal will be punished and exposed to the press, causing controversy in the community, including investors. ESG controversy contains unwanted ESG related news within the company, such as adverse activities and corporate scandals that surfaced in the media (Cai et al., 2012; Aouadi and Marsat, 2018). Negative news development in the market will destroy the company's reputation, which impacts company value, thereby increasing financial risk (Aouadi and Marsat, 2018). Investor reaction to ESG Controversy will increase stock price volatility exponentially, affecting the company's risk (Nguyen, 2015; Shakil et al., 2020).

2.3 Board Gender Diversity (BGD)

Board Gender Diversity is a calculation of the number of women on the board of directors of the company. It started with an increasing trend of representation of woman on the board of directors' in several countries (Simionescu et al., 2021). Female leaders have different leadership styles than males (Glass et al., 2016). Arayssi et al., (2019) found that female leaders are more focused on environmental and social welfare. Women pay more attention to stakeholder assessments and avoid strategic actions that hurt company performance. The woman on the board of directors offers various environmentally-friendly social solutions. These solutions help companies improve strategic decisions on environmental and social issues (Liu, 2018).

3. Materials and Methods

3.1 Materials

This study uses secondary data obtained from other sources and processed for other informants (Nadeem et al., 2017). This research consists of 105 public companies listed on stock exchanges of each country included in the ASEAN-5 (Indonesia, Malaysia, Philippines, Thailand, Singapore) region within the period 2016-2020.

There are three types of variables used in this study. First, the Thomson Reuters Datastream obtained independent variables consisting of ESG score, ESG controversy, and board gender diversity. Second, control variables consist of the market to book, leverage, dividend yield, and company size variables, obtained from Yahoo finance and financial report from each firm. Third, dependent variables consisting of stock price volatility as a proxy of total risk, obtained from calculating the annualized standard deviation of daily stock returns over the previous 12 months (Jo and Na, 2012). Also market beta as a proxy of systematic risk, obtained from Thomson Reuters Datastream based on the standard Capital Asset Pricing Model (CAPM) using the regression of daily returns of each country's market over the year.

3.2 Methods

The study uses the purposive sampling method. The purposive sampling method is a method for selecting units from data. The authors can use specific criteria that relevant samples must possess. This study employed Fixed Effect Model (FEM) regression as the best model to explore ESG performance's effect on financial risk. The model is built based on

previous researches by Mănescu (2011) and Shakil, M. H. (2021). The proposed models used in this study can be written as:

Model I

$$TR_{it} = \alpha_1 + \alpha_1 ESGSCORE_{it} + \alpha_2 ESGCON_{it} + \alpha_3 ESGBDG_{t-1} + \alpha_4 MBT_{it} + \alpha_5 LEV_{it} + \alpha_6 DY_{it} + \alpha_7 SIZE_{it} + e_{it} \quad (1)$$

Model II

$$SR_{it} = \alpha_1 + \alpha_1 ESGSCORE_{it} + \alpha_2 ESGCON_{it} + \alpha_3 ESGBDG_{t-1} + \alpha_4 MBT_{it} + \alpha_5 LEV_{it} + \alpha_6 DY_{it} + \alpha_7 SIZE_{it} + e_{it} \quad (2)$$

Where:

TR	: Total Risk
SR	: Systematic Risk
ESGSCORE	: ESG Score
ESGCON	: ESG Controversy
MTB	: Market to Book Equity
LEV	: Leverage
DY	: Dividend Yield
Size	: Firm Size

4. Results and Discussion

Table 1 shows the regression result of ESG score, ESG controversy, and BGD board and their impact on firm risk. Based on the tables, we can conclude that the ESG score in ASEAN-5 significantly affects stock market volatility as a proxy for total risk. This finding is in line with previous research by Shakil (2020), Tasnia et al. (2020), which stated that ESG with ESG score variable had a significant effect on stock market volatility as a proxy for total risk. However, the ESG score shows no significant effect on market beta as a proxy for systematic risk supported by previous research, namely, which stated that ESG performance was less responsive to systematic risk than other risk factors.

Table 1. Regression result

Variables	Model I (TR)		Model II (SR)	
	Coef.	P-Value	Coef.	P-Value
Independent Variable				
ESGSCORE	-	0.0204		0.8853
	0.002932		0.000174	
ESGCON	-	0.6216		0.0759
	0.000357		0.002997	
ESGBGD(-1)	-	0.0006		0.1488
	-0.002274		0.001123	
Control Variable				
MTB	-	0.4887	-	0.2065
	-0.003142		-0.004579	
LEV		0.0564		0.0772
	0.253054		0.250941	
SIZE		0.008		0.7454
	0.145446		-0.004504	
DY	-	0.7364		0.0865
	-0.154616		1.476616	
Obs.			420	
N. firms			105	
Prob>Chi ²	0.058821		0.063901	
R square	0.313594		0.031709	
[Adj] R square	0.066221		0.015257	

The study also found that BGD significantly affected stock volatility as a proxy for total risk. The finding is supported by the research of Nademm et al. (2017) and Wasiuzzaman and Wan (2019), which stated that the percentage of female directors influenced financial risk. It is because of the risk-averse tendency leadership style of female leaders, which impacts company profit and risk (Shakil et al., 2020). Sila et al. (2016) strengthen the result with their finding that BGD influences financial risk because female directors have more effective leadership in terms of strategic decision-making. In detail, BGD has a significant effect on total risk but does not significantly affect systematic risk.

ESG controversy shows a significant effect on systematic risk. However, ESG controversy shows no significant effect on stock volatility as a proxy for total risk. This finding is different from previous research that stated that ESG controversy affected financial risk (Shakil et al., 2020; Tasnia et al., 2019). According to Moikwatthai et al. (2019), they tend to watch press news as the fourth source after assessing financial reports and sustainability reports, investor presentations, Third-party data providers in determining the potential of the company. There is a possibility that the controversial news of the company cannot be a catch in the past five years with the assumption that not every company has a controversial report every year, especially companies with high ESG scores.

5. Conclusion

This study examines the impact of ESG Score, ESG Controversy, and BGD against total and systematic risk as a measurement of company risk. This study uses data of 105 listed companies on ASEAN-5 (Indonesia, Malaysia, Philippines, Thailand, and Singapore) covering the period of 2016-2020. Fixed Effect Model (FEM) represents the best model to explain the relationship between the independent and the dependent variables.

Based on the empirical result, we obtained three study findings. First, we found that ESG score significantly affects stock market volatility. However, ESG score has no significant impact on market beta. This finding implied that ESG scores influence total risk but not influence systematic risk. Second, ESG Controversy does not affect total risk and systematic risk. Third, BDG as board gender diversity has a significant impact to total risk but no effect to systematic risk. In addition, the significance of this study only at the 10% level reflects the slow adoption of the ESG trend in corporate strategy in ASEAN-5.

References

- Al-Jaifi, H. A. (2020). Board gender diversity and environmental, social and corporate governance performance: evidence from ASEAN banks. *Asia-Pacific Journal of Business Administration*, 75, 1757-4323.
- Ambrose, M. L., & Schminke, M. (1999). Sex differences in business ethics: The importance of perceptions. *Journal of Managerial Issues*, 24, 454-474.
- Amor-Esteban, V., Galindo-Villardón, M. P., García-Sánchez, I. M., & David, F. (2019). An Extension of the industrial corporate social responsibility practices index: New information for stakeholder engagement under a multivariate approach. *Corporate Social Responsibility and Environmental Management*, 26(1), 127-140.
- Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics*, 151(4), 1027-1047.
- Arayssi, M., Jizi, M., & Tabaja, H. H. (2019). The impact of board composition on the level of ESG disclosures in GCC countries. *Sustainability Accounting, Management and Policy Journal*, 11(1), 137-161.
- Cai, Y., Jo, H., & Pan, C. (2012). Doing well while doing bad? CSR in controversial industry sectors. *Journal of Business Ethics*, 108(4), 467-480.
- Chau, V., Shandal, V., Beal, D., Tauber, L., Woods, W., & Young, D. (2020). Unlocking Tomorrow's ESG Opportunities. *Boston Consulting Group*, April, 7.
- Haque, F., & Ntim, C. G. (2018). Environmental Policy, Sustainable Development, Governance Mechanisms and Environmental Performance: Environmental Policy, Corporate Governance and Environmental Performance. *Business Strategy and the Environment*, 27(3), 415-435.
- Glass, C., Cook, A., & Ingersoll, A. R. (2016). Do women leaders promote sustainability? Analyzing the effect of corporate governance composition on environmental performance. *Business Strategy and the Environment*, 25(7), 495-511.
- Jo, H., & Na, H. (2012). Does CSR Reduce Firm Risk? Evidence from Controversial Industry Sectors. *Journal of Business Ethics*, 110(4), 441-456.
- Liu, C. (2018). Are women greener? Corporate gender diversity and environmental violations. *Journal of Corporate Finance*, 52,

118–142.

- Lueg, K., Krastev, B., & Lueg, R. (2019). Bidirectional effects between organizational sustainability disclosure and risk. *Journal of Cleaner Production*, 229, 268-277.
- Mănescu, C. (2011). Stock returns in relation to environmental, social and governance performance: Mispricing or compensation for risk?. *Sustainable development*, 19(2), 95-118.
- Moikwatlhai, K., Yasseen, Y., & Omarjee, I. (2019). ESG reporting and the institutional shareholder base: a quantitative study of listed companies on the JSE. *Southern African Journal of Accountability and Auditing Research*, 21(1), 31-46.
- Muhammad, N., Scrimgeour, F., Reddy, K., & Abidin, S. (2015). The Impact of Corporate Environmental Performance on Market Risk: The Australian Industry Case. *Journal of Business Ethics*, 132(2), 347–362.
- Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. *Journal of Cleaner Production*, 149, 874–885.
- Nemoto, N., & Morgan, P. J. (2020). *Environmental, social, and governance investment: Opportunities and risks for Asia*. Asian Development Bank Institute.
- Nguyen, P., & Nguyen, A. (2015). The effect of corporate social responsibility on firm risk. *Social Responsibility Journal*, 11(2), 324-339.
- Sassen, R., Hinze, A. K., & Hardeck, I. (2016). Impact of ESG factors on firm risk in Europe. *Journal of business economics*, 86(8), 867-904.
- Shakil, M. H., Tasnia, M., & Mostafiz, M. I. (2020). Board gender diversity and environmental, social and governance performance of US banks: Moderating role of environmental, social and corporate governance controversies. *International Journal of Bank Marketing*, 35, 234-245.
- Shakil, M. H. (2021). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, 72, 102144.
- Sila, V., Gonzalez, A., & Hagendorff, J. (2016). Women on board: Does boardroom gender diversity affect firm risk?. *Journal of Corporate Finance*, 36, 26-53.
- Simionescu, L. N., Gherghina, Ș. C., Tawil, H., & Sheikha, Z. (2021). Does board gender diversity affect firm performance? Empirical evidence from Standard & Poor's 500 Information Technology Sector. *Financial Innovation*, 7(1), 1-45.
- Talan, G., & Sharma, G. D. (2019). Doing well by doing good: A systematic review and research agenda for sustainable investment. *Sustainability*, 11(2), 353.
- Tasnia, M., Syed Jaafar AlHabshi, S. M., & Rosman, R. (2021). The impact of corporate social responsibility on stock price volatility of the US banks: A moderating role of tax. *Journal of Financial Reporting and Accounting*, 19(1), 77–91.
- Pan, Y., & Sparks, J. R. (2012). Predictors, consequence, and measurement of ethical judgments: Review and meta-analysis. *Journal of business research*, 65(1), 84-91.
- Wasiuzzaman, S., & Wan Mohammad, W. M. (2020). Board gender diversity and transparency of environmental, social and governance disclosure: Evidence from Malaysia. *Managerial and Decision Economics*, 41(1), 145-156.
- Yoon, B., Lee, J. H., & Byun, R. (2018). Does ESG performance enhance firm value? Evidence from Korea. *Sustainability*, 10(10), 3635.