Exploring The Effects of Environmental, Social and Governance (ESG) on Banking Performance: A Case Study of Far East Asia

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Research article

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Abstract: Extensive research has focused on the connection between ESG and banking performance. However, a literature gap exists in the study of the influence of ESG disclosures on the banking and financial services sector, particularly in Far East Asia and ASEAN countries compared to Europe and North America. This study addresses this gap by employing data panel regression to investigate how environmental, social, and governance (ESG) factors affect bank performance in these regions. We analyze the correlation between ESG performance and various measures of bank performance: return on assets (ROA), return on equity (ROE), Tobin's Q, and Stock Return. Our findings reveal that stronger ESG performance in banks tends to have a negative impact on financial, operational and market performance. This research contributes to the existing literature on the relationship between ESG factors and banking performance and offers valuable insights for policymakers, investors, and banking practitioners in Far East Asia.

Keywords: ESG performance; bank performance; stock return.

1. Introduction

In today's world, delivering financial reports alone is no longer sufficient to satisfy shareholders. Companies are now urged to focus on issues beyond profitability, such as corporate governance, social responsibility, and the global environment. The implementation of ESG (Environment, Social, Governance) reporting in Asia is still lagging behind the US and Europe, which poses a significant challenge for companies operating in the region (Chang et al., 2021). As a result, there is a need for a second report that can provide information on a company's sustainability and ESG performance. This report will enable companies to demonstrate how their operations impact and help to address environmental, social, and corporate governance challenges. The Willis Towers Watson study found that only 31% of organizations in Asia have ESG policies, and just 11% of investor money is invested in sustainable assets or goods. Despite this, sustainable inflows of money and corporate ESG disclosures have increased rapidly, indicating that the implementation of ESG reporting in Asia is slowly gaining momentum.

As key players in the financial system, banks have played a crucial role in protecting the environment, not only within their operations but also by supporting their business partners and clients (Ghosh, 2018). In the view of Gangi et al., (2019), banks can develop and apply an

effective ESG strategy by implementing a comprehensive environmental management system. This approach benefits not only the bank's internal operations but also its borrowers and customers, enabling them to contribute to a more sustainable future. Buallay, (2019) highlights the need for further literature investigation in this area, which could reveal important insights into how companies in this industry can better align their operations with sustainability goals. While there has been extensive research into the link between ESG and a company's performance, there is still a gap in the literature when it comes to studying the impact of ESG disclosures on the banking and financial services sector, as the existing literature is relatively limited compared to other regions such as Europe and North America.

ESG factors have become increasingly important in the banking industry, especially in Far East Asia home to some of the world's fastest-growing economies, and many governments and financial institutions in the region actively promote sustainable finance. Far East Asia also has a specific risk as environmental, social, and governance challenges, including water scarcity, air pollution, and labor rights violations. To address these issues and create long-term value for their stakeholders, regional banks are under growing pressure to adopt sustainable and socially responsible practices.

This research paper seeks to explore the impact of ESG performance factors on banking performance in Far East Asia, covering countries like China, Japan, South Korea, Taiwan, Hong Kong and ASEAN countries such as Indonesia, Malaysia, Singapore, Thailand, Vietnam, Philippine, Myanmar, Laos, Cambodia, and Brunei Darussalam, each with their unique economic, social, and environmental contexts. The study focuses on the relationship between ESG performance and three key measures of bank performance: financial performance measures by return on assets (ROA), Operational performance measures by return on equity (ROE), and market performance measures by Tobin's Q and stock return. By examining these factors, we hope to (1) gain a better understanding of how ESG considerations affect the financial, operational, and market performance of banks in this region, (2) provide insights that could inform future decision-making for the industry, and (3) help to identify best practices and provide insights for investors and policymakers.

2. Literature Review

2.1. ESG toward Bank Performance

Various previous studies have widely discussed the importance of ESG disclosure. Stakeholder theory suggests that incorporating ESG can be a competitive advantage and requires a long-term strategy that aligns the interests of management with those of stakeholders, such as employees, consumers, and local governments. Buallay, (2019) notes that while the relationship between ESG and a company's financial performance has been thoroughly examined, there is still a lack of research that specifically focuses on the impact of ESG disclosure on companies in the banking and financial services sectors.

Several studies have investigated the relationship between ESG and company performance in the banking sector, but the findings are conflicting. For instance, Alareeni & Hamdan, (2020), who researched 500 companies listed in the S&P, found that ESG has a positive impact on company performance. However, other studies, such as Buallay et al., (2020) study on 882 banking sector companies in developed and developing countries, indicate that ESG may have a negative influence on banking performance in developing countries.

2.2. Environmental factors toward Bank Performance

Banks have a crucial role in protecting the environment by using their lending and financing functions to support eco-friendly initiatives for both the firm and their clients. Adopting an all-encompassing environmental management system can lead to the implementation of environmental strategies, benefiting the bank, its borrowers, and customers. By supporting environmentally friendly projects, a bank can reduce the risk of financing non-environmentally friendly industries, making more efficient use of funding resources. Furthermore, integrating environmental considerations into funding policies and offering green financing demonstrates a bank's commitment to protecting the environment, as highlighted by Gangi et al., (2019).

A bank that prioritizes environmental concerns can also gain a competitive edge by demonstrating its commitment to eco-friendliness. Miralles-Quirós et al., (2019) note that investment in the environment can provide added value and increase a bank's competitive advantage. In Stakeholder theory, Albertini, (2013) also supports the idea that environmental factors have a positive impact on banking performance. By embracing environmental policy initiatives, a bank can distinguish itself from its competitors and build a reputation as an environmentally responsible institution.

2.3. Social factor toward Bank Performance

Banks have a critical role to play in society, and corporate social responsibility (CSR) is an essential aspect of their operations. By offering ethical investment funds, providing risk management to customers, and educating the community on economics, banks can demonstrate their commitment to CSR (Avrampou et al., 2019). Implementing CSR strategies can also help banks establish trust with their stakeholders and increase their profitability (El Khoury et al., 2021).

The impact of CSR extends beyond the banking industry and can affect bank employees, customers, and the community as a whole (Menicucci & Paolucci, 2022). By prioritizing CSR, banks can distinguish themselves from their competitors and build public trust in their activities (Gangi et al., 2019). Previous research has shown that CSR positively influences the financial performance, market position, and reputation of banking companies (Buallay et al., 2020; Velte, 2017). By embracing CSR, banks can not only make a positive impact on society but also improve their own success.

2.4. Governance factor toward Bank Performance

Menicucci & Paolucci, (2022) suggest that excellent corporate governance is crucial for maximizing company performance according to agency theory. They argue that the quality of governance is affected by various factors, such as cultural diversity, gender equality, board size, director expertise, competition level, and corporate governance risks. Hence, banking companies need to innovate their business model by redefining their core values (Youssef & Diab, 2021). Furthermore, due to the heavy regulations and special rules that apply to banking institutions, an efficient corporate governance structure is necessary (John et al., 2016).

Previous studies have examined the impact of governance factors on company performance in the banking sector. Esteban-Sanchez et al., (2017) found that governance plays a significant role in enhancing the financial performance of a company while reducing agency costs. However, Shakil et al., (2019) found that the impact of governance on the performance of banking companies is insignificant.

3. Research Methods

3.1. Data Collection

We collected data on ESG (environmental, social, and governance) factors and banking performance for a sample of banks operating in Far East Asia. Data on ESG factors were obtained from Refinitiv ESG. Refinitiv ESG evaluates the ESG performance of companies based on a set of industry-specific indicators, including environmental impact, labor practices, and board diversity. Banking performance data were obtained from the Annual report statements of the selected banks & Refinitiv Database.

3.2. Sample Selection

We selected a sample of banks operating in Far East Asia based on their ESG Disclosure report on Refinitiv for the years 2017 through 2021. We included 142 banks from China, Hong Kong, Japan, South Korea, Taiwan, Indonesia, Malaysia, Philippines Singapore, Thailand, and Vietnam. We excluded banks that were not publicly listed or did not report ESG performance data on Refinitiv.

3.3. Data Analysis

We used regression data panel analysis to examine the relationship between ESG performance and banking performance and processed using EViews 12 Software. The dependent variable was banking performance split by three measurements, measured by return on assets (ROA), return on equity (ROE), Tobin's Q (TQ), and stock return (SR). The independent variables were the ESG score and its three pillars score provided by the Refinitiv. We also included control variables such as bank size, net interest margin, and GDP growth.

This study adopted the Simple Linear Regression Model from the research of Menicucci & Paolucci (2022) Menicucci & Paolucci, (2022) and Aydoğmuş et al., (2022) Aydoğmuş et al. (2022), where in the research of Menicucci & Paolucci, (2022) used 4 models for each dependent variable to analyze the effect of bank performance and in the research of Aydoğmuş et al., (2022) separated the model for each ESG independent variable and its three pillars due to the high correlation value between these independent variables. The researcher's model is described as follows:

Model 1:

Model 1 uses Return on Assets (*ROA*) as the dependent variable. Model 1 is separated into Model 1a, Model 1b, Model 1c, and Model 1d where each model is represented by the independent variable ESG and each pillar.

Model 1a:

$$\begin{split} &ROA_{it} = \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ &\text{Model 1b:} \\ &ROA_{it} = \beta_0 + \beta_1 ENV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ &\text{Model 1c:} \end{split}$$

 $ROA_{it} = \beta_0 + \beta_1 SOC_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$ Model 1d:

 $ROA_{it} = \beta_0 + \beta_1 GOV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$

Model 2:

Model 2 uses Return on Equity (*ROE*) as the dependent variable. Model 2 is separated into Model 2a, Model 2b, Model 2c, and Model 2d where each model is represented by the independent variable ESG and each pillar.

Model 2a:

$$\begin{split} &ROE_{it} = \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ &\text{Model 2b:} \\ &ROE_{it} = \beta_0 + \beta_1 ENV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ &\text{Model 2c:} \\ &ROE_{it} = \beta_0 + \beta_1 SOC_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ &\text{Model 2d:} \end{split}$$

$$ROE_{it} = \beta_0 + \beta_1 GOV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$$

Model 3:

Model 3 uses Tobin's Q (TQ) as the dependent variable. Model 3 is separated into Model 3a, Model 3b, Model 3c, and Model 3d where each model is represented by the independent variable ESG and each pillar.

 $TQ_{it} = \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$ Model 3b: $TQ_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 NIM_{2it} + \beta_2 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$

 $TQ_{it} = \beta_0 + \beta_1 ENV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$ Model 3c:

 $TQ_{it} = \beta_0 + \beta_1 SOC_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$ Model 3d:

$$TQ_{it} = \beta_0 + \beta_1 GOV_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$$

Model 4:

Model 4 uses Stock Return (*SR*) as the dependent variable. Model 4 is separated into Model 4a, Model 4b, Model 4c, and Model 4d where each model is represented by the independent variable ESG and each pillar.

Model 4a:

$$\begin{split} SR_{it} &= \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ \text{Model 4b:} \\ SR_{it} &= \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ \text{Model 4c:} \\ SR_{it} &= \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it} \\ \text{Model 4c:} \\ \end{split}$$

 $SR_{it} = \beta_0 + \beta_1 ESG_{1it} + \beta_2 NIM_{2it} + \beta_3 SIZE_{3it+} + \beta_4 GDP_{4it} + \varepsilon_{it}$

4. **Results and Discussion**

4.1. Descriptive Statistics Analysis

 Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
ESG	7.341382	88.60202	53.58858	19.38614
ENV	0.158085	95.19966	48.28279	24.60240
SOC	2.059249	97.04719	54.94885	23.67654
GOV	9.902110	95.58373	55.64496	21.28697
ROA	0.001160	0.031348	0.007833	0.005035
ROE	0.014464	0.185498	0.088019	0.035940

Variable	Minimum	Maximum	Mean	Std. Deviation
ΤQ	0.893120	2.096034	1.016305	0.124852
SR	-0.077454	0.050465	-0.003956	0.018992
NIM	0.003289	0.091167	0.022712	0.015273
SIZE	21.87936	29.26229	25.65023	1.427887
GDP	-0.09518	0.081090	0.029234	0.037813

Based on Table 1, it shows that the Environmental, Social, Governance score (*ESG*) variable has an average value of 54.58. The standard deviation value of ESG shows 19.38 which shows ESG has a wide spread of data. The minimum value of ESG is 7.34 owned by Chiba Bank Ltd. located in Japan in 2019. At the maximum value of ESG which shows 88.60 owned by E.SUN Financial Holding Co Ltd. located in China in 2021.

Environmental pillar score (*ENV*) has an average value of 48.28. The standard deviation value of ENV is 24.60 which shows that ENV has a wide distribution of data. The minimum value of ENV is 0.15 owned by 77 Bank Ltd banking located in Japan in 2017 where the bank has just implemented ESG disclosure for the first time. The maximum value of ENV shows a value of 95.19 owned by DBS Group Holdings Ltd banks located in Singapore in 2021.

Social pillar score (*SOC*) has an average value of 54.94. The standard deviation value of SOC is 23.67 which shows *SOC* has a wide distribution of data. The minimum *SOC* value is 2.05 which is owned by Kyushu Financial Group Inc in 2017. The maximum value of *SOC* shows a value of 97.04 obtained by E.SUN Financial Holding Co Ltd in 2021.

Governance pillar score (*GOV*) has an average value of 55.64. The standard deviation value of GOV is 21.28 which indicates that *GOV* has a wide distribution of data. The minimum *GOV* value is 9.90 which is owned by Chiba Bank Ltd located in Japan in 2017. The maximum value of *GOV* shows a value of 95.58 obtained by Sumitomo Mitsui Financial Group Inc. located in Japan in 2021.

The *ROA* variable has an average value of 0.78%. The standard deviation value of *ROA* is 0.004 which shows *ROA* has a wide spread of data. The minimum *ROA* value is 0.04% owned by the Shengjing Bank Co Ltd company based in China in 2021. The maximum value of ROA shows a value of 3.13% obtained by PT Bank Central Asia Tbk located in Indonesia in 2018.

Then the *ROE* variable has an average value of 8.80%. The standard deviation value of *ROE* is 0.035 which shows *ROE* has a wide spread of data. The minimum *ROE* value is 1.44% owned by Bank of Kyoto Ltd based in Japan in 2021. The maximum value of *ROE* shows a value of 18.54% obtained by the TISCO Financial Group PCL company based in Thailand in 2019.

The *TQ* variable has an average value of 1.01. The standard deviation value of *TQ* is 0.12 which shows that *TQ* has a wide distribution of data. The minimum value of *TQ* is 0.89 obtained by the Malaysia Building Society Bhd company based in Malaysia in 2021. The maximum value of *TQ* shows a value of 2.09 owned by Public Bank Bhd in Malaysia in 2018.

Furthermore, the *SR* variable has an average value of -0.39%. The standard deviation value of SR is 0.12 which shows that *SR* has a wide distribution of data. The minimum value of *SR* is -0.77 obtained by PT Danamon Indonesia Tbk company based in Indonesia in 2019. The maximum value of *SR* shows a value of 5.04% obtained by Bank of Chengdu Co Ltd located in China in 2018.

4.2. Regression Result Analysis

4.2.1. Model 1 Regression Result (ROA)

Dependent Variable: Return on Asset (ROA)					
Model	1a	1b	1c	1d	
Variable	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	
ESG	-3.19E-05 (0.0412)	-	-	-	
ENV	-	-7.50E-06 (0.2586)	-	-	
SOC	-	-	-1.20E-05 (0.3526)	-	
GOV	-	-	-	-2.77E-05 (0.0043)	
NIM	0.082039 (0.0487)	0.085018 (0.0418)	0.086299 (0.0387)	0.079319 (0.0554)	
SIZE	-0.004106 (0.0000)	-0.004821 (0.0000)	-0.004568 (0.0000)	-0.004564 (0.0000)	
GDP	-0.004000 (0.1319)	-0.003329 (0.2137)	-0.003716 (0.1626)	-0.004194 (0.1125)	
Adjusted (R-squared)	0.880807	0.879892	0.879762	0.914859	
Prob (F-statistic)	0.000000	0.000000	0.000000	0.000000	

Table 2. Model 1 Result

Table 2 presents the regression results of Model 1 separated into four models namely Model 1a, Model 1b, Model 1c, and Model 1d, which provides insight into the relationship and impact of *ESG* and its three pillars on banking performance as measured by firm operations, as measured by *ROA*. The table also lists the control variables used in the analysis to provide a more complete picture of the influence of these factors on firm performance.

In Model 1a, the independent variable *ESG* has a negative coefficient of -3.19E-05 which indicates a negative effect on *ROA*, and the p-value is 0.0412 which is less than 0.05 indicating a significant effect. This finding is in line with Buallay et al., (2021) where the role of *ESG* has a negative impact on the performance of banking companies as seen from Return on assets (*ROA*).

In model 1b, the independent variable *ENV* has a negative coefficient of -7.50E-06 which indicates a negative effect on *ROA*, but the p-value shows 0.2586 which is greater than 0.05 which indicates an insignificant effect on *ROA*. The same thing in model 1c, the independent variable *SOC* has a negative coefficient of -1.20E-05 which indicates a negative effect on *ROA*,

and the p-value shows 0.3526 which is greater than 0.05 which indicates an insignificant effect on *ROA*.

While in Model 1d, the independent variable *GOV* has a negative coefficient of -2.77E-05 which indicates a negative effect on *ROA*, and the p-value shows 0.0043 which is smaller than 0.05 which shows a significant effect which agrees with Peni & Vähämaa, (2012) research showing that banks with a high governance role can reduce company performance.

Table 3. Model 2 Result

Dependent Variable: Return on Equity (ROE)					
Model	1a	1b	1c	1d	
Variable	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	
ESG	-0.000299 (0.0321)	-	-	-	
ENV	-	-7.80E-05 (0.1883)	-	-	
SOC	-	-	-0.000125 (0.2769)	-	
GOV	-	-	-	-0.000153 (0.0787)	
NIM	-0.109903 (0.7666)	-0.084534 (0.8200)	-0.071284 (0.8478)	-0.103843 (0.7797)	
SIZE	-0.057077 (0.0000)	-0.063729 (0.0000)	-0.061085 (0.0000)	-0.062509 (0.0000)	
GDP	-0.034139 (0.1493)	-0.027496 (0.2494)	-0.031524 (0.1842)	-0.033975 (0.1523)	
Adjusted (R-squared)	0.817374	0.867160	0.815720	0.867637	
Prob (F-statistic)	0.000000	0.000000	0.000000	0.000000	

4.2.2.	Model 2 Regression Result	(ROE)	
		()	

Table 3 presents the regression results of Model 2 separated into four models, namely Model 2a, Model 2b, Model 2c, and Model 2d, providing an understanding of the relationship and impact of ESG and its three pillars on banking performance as measured by the company's financial *ROE*. The table also lists the control variables used in the analysis to provide a more complete picture of the influence of these factors on firm performance.

In Model 2a, the independent variable *ESG* has a negative coefficient of -0.000299 which indicates a negative effect on *ROE*, and the p-value is 0.0321 which is less than 0.05, indicating a significant effect. This finding is in line with Buallay et al., (2021) where the role of *ESG* has an unfavorable impact on the performance of banking companies as seen from Return on assets (*ROE*).

In model 2b, the independent variable *ENV* has a negative coefficient of -7.80E-05 which indicates a negative effect on *ROE*, but the p-value shows 0.0321 which is greater than 0.05 which indicates an insignificant effect on *ROE*. The same thing in model 2c, the independent variable *SOC* has a negative coefficient of -0.000125 which indicates a negative effect on *ROE*,

and the p-value shows 0.2769 which is greater than 0.05 which indicates an insignificant effect on *ROE*.

Meanwhile, in Model 2d, the independent variable *GOV* also has a negative coefficient of -2.77E-05 which indicates a negative effect on *ROE*, but the p-value shows 0.0787 which is greater than 0.05 which indicates a non-significant effect.

Table 4. Model 3 Result

Dependent Variable: Tobin's Q (TQ)					
Model	1a	1b	1c	1d	
Variable	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	Coef. (P-value)	
ESG	-0.001229 (0.0062)	-	-	-	
ENV	-	0.000126 (0.5105)	-	-	
SOC	-	-	-0.000558 (0.1318)	-	
GOV	-	-	-	-0.000719 (0.0101)	
NIM	-0.058893 (0.9605)	0.192554 (0.8726)	0.095332 (0.9365)	-0.061086 (0.9591)	
SIZE	-0.075774 (0.0008)	-0.105487 (0.0000)	-0.091144 (0.0000)	-0.097113 (0.0000)	
GDP	0.223521 (0.0034)	0.229932 (0.0030)	0.234128 (0.0023)	0.222491 (0.0036)	
Adjusted (R-squared)	0.853277	0.850519	0.851243	0.852944	
Prob (F-statistic)	0.000000	0.000000	0.000000	0.000000	

4.2.3. Model 3 Regression Result (TQ)

Table 4 presents the regression results of Model 3 separated into four models namely Model 3a, Model 3b, Model 3c, and Model 3d, which provides an overview of the relationship and impact of ESG and its three pillars on banking performance as measured by the firm's market performance, as measured by *TQ*. The table also lists the control variables used in the analysis to provide a more complete picture of the influence of these factors on firm performance.

In Model 3a, the independent variable *ESG* has a negative coefficient of -0.001229 which indicates a negative effect on TQ, and the p-value shows 0.0062 which is smaller than 0.05 which indicates a significant effect which agrees with the research of Buallay et al., (2021) where the role of *ESG* has a negative influence on banking market performance. The effect of TQ on the sector in the banking sector due to the COVID-19 pandemic has affected the financial crisis worldwide in 2020 to 2021. Peni & Vähämaa, (2012) explain that the financial crisis can adversely affect company performance, thus impacting the market performance of a bank. As an intermediary institution, banks have an impact due to the large number of business loan defaults, decreased lending, and decreased economic growth.

In model 3b, the independent variable *SOC* has a positive coefficient of 0.000126 which indicates a positive effect on TQ, but the p-value shows 0.5105 which is greater than 0.05 which indicates an insignificant effect on TQ. Whereas in model 3c, the independent variable *SOC* has a negative coefficient of -0.000558 which indicates a negative effect on TQ, but the p-value shows 0.1318 which is greater than 0.05 which indicates an insignificant effect on TQ.

Then in Model 3d, the independent variable GOV has a negative coefficient of -0.000719 which indicates a negative effect on TQ, and the p-value shows 0.0101 which is smaller than 0.05 which shows a significant effect which agrees with the research of Peni & Vähämaa, (2012) showing that banks with a high governance role can reduce company performance so that it has an impact on the company's market performance.

Table 5. Model 4 Result

Model 1a 1b 1c 1d Variable Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) ESG 7.54E-05 (0.6381) - - - - ENV - 0.000260 (0.0001) - - - SOC - - - - - GOV - - - 2.81E-05 (0.7780) - NIM 0.623683 0.697491 0.606340 0.617564 (0.1484)	Dependent Variable: Tobin's $O(TO)$						
Model Ia Ib Ic Id Variable Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) ESG 7.54E-05 (0.6381) - - - - - ENV - 0.000260 (0.0001) - - - - SOC - - - -5.87E-06 (0.9642) - - GOV - - - 2.81E-05 (0.7780) - - NIM 0.623683 (0.1442) 0.697491 0.606340 (0.1548) 0.617564 (0.1484)							
Variable Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) Coef. (P-value) ESG 7.54E-05 (0.6381) - - - ENV - 0.000260 (0.0001) - - SOC - - - - GOV - - 2.81E-05 (0.7780) - NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	Model	la	10	lc	1a		
(P-value) (P-value) <t< th=""><th>Variable</th><th>Coef.</th><th>Coef.</th><th>Coef.</th><th>Coef.</th></t<>	Variable	Coef.	Coef.	Coef.	Coef.		
ESG 7.54E-05 (0.6381) - - - ENV - 0.000260 (0.0001) - - SOC - - - - GOV - - - 2.81E-05 (0.7780) NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	vallable	(P-value)	(P-value)	(P-value)	(P-value)		
ESG (0.6381) -	72.0	7.54E-05	-				
ENV - 0.000260 (0.0001) - - SOC - -5.87E-06 (0.9642) - - GOV - - 2.81E-05 (0.7780) - NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	ESG	(0.6381)	-	-	-		
ENV -			0.000260				
SOC - -5.87E-06 (0.9642) - GOV - - 2.81E-05 (0.7780) NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	ENV	-	(0.0001)	-	-		
SOC - - 0.071700 (0.9642) GOV - - 2.81E-05 (0.7780) NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)		·		-5.87F-06			
GOV - - 2.81E-05 (0.7780) NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	SOC	-	-	(0.9642)	-		
GOV 2.81E-05 (0.7780) NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)			.	(0.9012)	0 01E 0E		
NIM 0.623683 (0.1442) 0.697491 (0.0952) 0.606340 (0.1548) 0.617564 (0.1484)	GOV	-	-	-	2.81E-05		
NIM 0.623683 0.697491 0.606340 0.617564 (0.1442) (0.0952) (0.1548) (0.1484)				-	(0.7780)		
(0.1442) (0.0952) (0.1548) (0.1484)	NTIN A	0.623683	0.697491	0.606340	0.617564		
	INIIVI	(0.1442)	(0.0952)	(0.1548)	(0.1484)		
-0.020389 -0.020067 -0.018420 -0.018893		-0.020389	-0.020067	-0.018420	-0.018893		
(0.0111) (0.0037) (0.0174) (0.0080)	SIZE	(0.0111)	(0.0037)	(0.0174)	(0.0080)		
0.184641 0.171752 0.183813 0.184368	0.22.2	0.184641	0.171752	0.183813	0.184368		
(0.0000) (0.0000) (0.0000) (0.0000)	GDP	(0.0000)	(0.0000)	(0.0000)	(0.0000)		
Adjusted	Adjusted				· · · · · ·		
(R-squared) 0.160657 0.193725 0.160158 0.160334	(R-squared)	0.160657	0.193725	0.160158	0.160334		
Prob 0 000045 0 000001 0 0000047	Prob	0.000045	0.000001	0.000047	0.000045		
(F-statistic) 0.000045 0.000001 0.000047 0.000047	(F-statistic)	0.000045	0.000001	0.000047	0.000047		

4.2.4. Model 4 Regression Result (SR)

Table 5 presents the regression results of Model 4 separated into four models namely Model 4a, Model 4b, Model 4c, and Model 4d, which provides an explanation of the relationship and impact of ESG and its three pillars on banking performance as measured by the firm's market performance, as measured by SR. The table also lists the control variables used in the analysis to provide a more complete picture of the influence of these factors on firm performance.

In Model 4a, the independent variable *ESG* has a positive coefficient of 7.54E-05 which indicates a positive influence on *SR*, and the p-value is 0.6381 which is greater than 0.05 indicating an insignificant influence.

In model 4b, the independent variable ENV has a positive coefficient of 0.000260 which

indicates a positive influence on *SR*, with a p-value of 0.0001 which is lower than 0.05 which indicates a significant influence on *SR*. This finding is in line with the research results of Aydoğmuş et al., (2022) where the environmental performance of banking companies has a significant effect on stock value. Based on Signal Theory, when bank companies actively demonstrate a strong dedication to the environment through sustainable practices, banks effectively communicate their alignment with environmental issues to investors. This strategic signal can instill greater confidence among investors, indicating that bank firms have promising business prospects and higher potential long-term returns.

While in model 4c, the independent variable *SOC* has a negative coefficient of -0.000558 which indicates a negative effect on SR, and the p-value shows 0.1318 which is greater than 0.05 which indicates an insignificant effect on SR. The same thing happens.

In Model 4d, the independent variable *GOV* has a negative coefficient of -0.000719 which indicates a negative effect on SR, and the p-value shows 0.0101 which is smaller than 0.05 which shows a significant effect which agrees with the research of Peni & Vähämaa, (2012) showing that banks with a high governance role can reduce company performance so that it has an impact on the company's market performance.

5. Conclusion

This study provides results that reveal the impact of ESG sustainability disclosures on the performance of banking companies in solid empirical evidence. By taking sample data from banks listed on the Far East Asia Stock Exchange, this study successfully answers the main question by drawing the following conclusions:

- a. The role of *ESG* has a significant negative influence on banking performance *ROA*, *ROE*, and *TQ*. This finding is in line with the results conducted by Buallay et al., (2021) which explains that banking companies that have a commitment to considering sustainability factors such as ESG tend to experience a decline in company performance and harm the value of the company's shares in the short term. Banking performance is also strongly influenced by the COVID-19 pandemic, which has resulted in a worldwide financial crisis in 2020 to 2021. Peni & Vähämaa, (2012) explain that the financial crisis can adversely affect company performance and thus have an impact on the market performance of a bank. As an intermediary institution, banks have an impact due to the large number of business loan defaults, decreased lending, and decreased economic growth. Therefore, the results of the study support H1 where there is an influence even though the impact shown is negative.
- b. The role of *ENV* has a significant influence on banking performance as seen from the company's market has a positive seen from *TQ* and *SR*. This is supported according to a study conducted by Aydoğmuş et al., (2022), the environmental performance of banking companies has a significant value. Based on Signal Theory, when bank companies actively demonstrate a strong dedication to the environment through sustainable practices, they effectively communicate their alignment with environmental issues to investors and consumers. These strategic signals can instill greater confidence among investors, indicating that bank companies have promising business prospects and higher potential long-term returns. Based on the above conclusions, the research results support H2 where there is an influence of *ENV* on bank performance on the market performance side.
- c. The presence of *SOC* also has a negative influence on bank performance in terms of *ROA*, *ROE*, *TQ*, and *SR*. However, the results of this study show no significance on all dependent variables that have been determined. Therefore, the results of the study do not support H3 where there is no significance on company performance.

d. The role of *GOV* also has a significant but negative impact on banking performance in terms of *TQ*. findings agree with the research of Peni & Vähämaa, (2012) indicating that a company's market performance still has a negative impact during a financial crisis even though the company has a high governance role. This research takes a period when the world is facing the COVID-19 pandemic which affects company performance in various sectors. the research results support H4 where there is an influence of GOV on bank performance in terms of market performance.

References

- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. Corporate Governance (Bingley), 20(7), 1409–1428. https://doi.org/10.1108/CG-06-2020-0258
- Albertini, E. (2013). Does Environmental Management Improve Financial Performance? A Meta-Analytical Review. Organization and Environment, 26(4), 431–457. https://doi.org/10.1177/1086026613510301
- Amit Ghosh. (2018). What drives banking industry competition in developing countries?JournalofEconomicDevelopment,43(4),1–20.https://doi.org/10.35866/caujed.2018.43.4.001
- Avrampou, A., Skouloudis, A., Iliopoulos, G., & Khan, N. (2019). Advancing the Sustainable Development Goals: Evidence from leading European banks. Sustainable Development, 27(4), 743–757. https://doi.org/10.1002/sd.1938
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. Borsa Istanbul Review, 22, S119–S127. https://doi.org/10.1016/j.bir.2022.11.006
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. Management of Environmental Quality: An International Journal, 30(1), 98–115. https://doi.org/10.1108/MEQ-12-2017-0149
- Buallay, A., Fadel, S. M., Alajmi, J., & Saudagaran, S. (2020). Sustainability reporting and bank performance after financial crisis: Evidence from developed and developing countries. Competitiveness Review, 31(4), 747–770. https://doi.org/10.1108/CR-04-2019-0040
- Buallay, A., Fadel, S. M., Alajmi, J., & Saudagaran, S. (2021). Sustainability reporting and bank performance after financial crisis. Competitiveness Review: An International Business Journal, 31(4), 747–770. https://doi.org/10.1108/CR-04-2019-0040
- Chang, H.-Y., Liang, L.-W., & Liu, Y.-L. (2021). Using Environmental, Social, Governance (ESG) and Financial Indicators to Measure Bank Cost Efficiency in Asia. Sustainability, 13(20), 11139. https://doi.org/10.3390/su132011139
- El Khoury, R., Nasrallah, N., & Alareeni, B. (2021). ESG and financial performance of banks in the MENAT region: concavity-convexity patterns. Journal of Sustainable Finance and Investment. https://doi.org/10.1080/20430795.2021.1929807
- Esteban-Sanchez, P., de la Cuesta-Gonzalez, M., & Paredes-Gazquez, J. D. (2017). Corporate social performance and its relation with corporate financial performance: International evidence in the banking industry. Journal of Cleaner Production, 162, 1102–1110. https://doi.org/10.1016/j.jclepro.2017.06.127
- Gangi, F., Meles, A., D'Angelo, E., & Daniele, L. M. (2019). Sustainable development and corporate governance in the financial system: Are environmentally friendly banks less risky? Corporate Social Responsibility and Environmental Management, 26(3), 529–547. https://doi.org/10.1002/csr.1699
- John, K., De Masi, S., & Paci, A. (2016). Corporate Governance in Banks. Corporate

Governance: An International Review, 24(3), 303–321. https://doi.org/10.1111/corg.12161

- Menicucci, E., & Paolucci, G. (2022). Gender diversity and bank risk-taking: an empirical investigation in Italy. Corporate Governance (Bingley), 22(2), 317–339. https://doi.org/10.1108/CG-11-2020-0498
- Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Redondo-Hernández, J. (2019). The impact of environmental, social, and governance performance on stock prices: Evidence from the banking industry. Corporate Social Responsibility and Environmental Management, 26(6), 1446–1456. https://doi.org/10.1002/csr.1759
- Peni, E., & Vähämaa, S. (2012). Did Good Corporate Governance Improve Bank Performance during the Financial Crisis? Journal of Financial Services Research, 41(1–2), 19–35. https://doi.org/10.1007/s10693-011-0108-9
- Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. Management of Environmental Quality: An International Journal, 30(6), 1331–1344. https://doi.org/10.1108/MEQ-08-2018-0155
- Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. Journal of Global Responsibility, 8(2), 169–178. https://doi.org/10.1108/JGR-11-2016-0029
- Youssef, J., & Diab, S. (2021). Does quality of governance contribute to the heterogeneity in happiness levels across MENA countries? Journal of Business and Socio-Economic Development, 1(1), 87–101. https://doi.org/10.1108/jbsed-03-2021-0027