BANKS' FINANCIAL PERFORMANCE: A STUDY OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DIMENSIONS

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Abstract

In recent years, environmental, social, and governance (ESG) issues have become of great interest, especially in the banking sector. Banks are integrating ESG dimensions into their strategies because ESG is expected to impact banks' financial performance (Menicucci & Paolucci, 2022). This study contributes to exploring the impacts of ESG on financial performance in the banking sector by shedding light on the relationship between ESG awareness, ESG practices, and banks' financial performance. The study also examines the mediating role of ESG practices in the relationship between ESG awareness and banking performance. Using SmartPLS 4 software, the findings confirm the positive relationship between ESG awareness, ESG practices, and banking performance across accounting measures (earnings before interest and taxes [EBIT], return on assets [ROA], net interest margin [NIM]), and also assert the mediating role of ESG practices in the relationship between ESG awareness and banking performance (Wu et al., 2024). The results support the idea that ESG adoption may increase banking performance and suggest the implementation of the ESG strategy to achieve sustainable development.

Keywords: ESG, Awareness, Practices, Banking Performance, Sustainable Development

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1. INTRODUCTION

In recent years, environmental, social, and governance (ESG) issues have become a topic of interest. In response to climate change, businesses tend to increasingly implement sustainable development activities. Many businesses incorporate ESG dimensions into their strategy, such as controlling overall emissions, efficient use of natural resources, their impacts on surrounding society, and diversity issues, etc. (Dung et al., 2024; Grove et al., 2024; Kadekova et al., 2020; Tran & Nguyen, 2023). When the interest of the company is aligned with its stakeholders' interests, it is easier to improve its reputation among stakeholders and is expected to bring about good financial performance (Freeman, 1984).

A commercial bank acts as a financial mediator between individuals, businesses, and government entities. Commercial bank transfers money from those who have surplus money to those who need money. Therefore, commercial banks play a critical role not only in the development of the economy but also in the sustainability of society. Levine (2005) stated the central role of commercial banks through lending, investment, and risk management activities in promoting sustainable development. The ESG performance of the banking sector has become increasingly important and has caught the stakeholders' interest. Investors and other stakeholders are becoming more socially conscious and inclining their investments in companies that not only have high profits but also pay high attention to sustainable development (Debnath et al., 2024; Michael et al., 2023). According to Komacnova et al. (2012), ESG is part of corporate sustainable reporting, a set of standards to measure factors related to sustainable development and the business impacts on the community. ESG dimensions include environmental, social, and governance. Environmental measures company's emissions, depletion of natural resources, and deforestation. Social relates to corporate policy related to employees, customers, and partners as working conditions, health and safety, indigenous community, and diversity. Governance refers to the leadership level in the business: corruption, transparency and accountability, and board diversity.

There is a significant link between ESG awareness, ESG practices, and corporate financial performance (Wang et al., 2021; Suto & Takehara, 2018; Hassan Al-Tamimi, 2014). When ESG perceptiveness is encouraged, employees understand the long-term impacts of ESG, which increases their readiness to implement ESG practices. This promotes the trust and the reputation of the company and enables the company to achieve better financial performance (Chang & Devine, 2019; Albertini, 2013; Velte, 2017; Orazalin & Mahmood, 2019). However, the impact of ESG activities on financial performance is inconsistent. Soana (2011) examined the relationship between corporate social responsibility and corporate financial performance (proxied by market and accounting ratios) and found no significant link between them. Azmi et al. (2021) found a non-linear relationship between ESG performance and financial performance. ESG activity positively improves bank performance only up to a point, after which the benefit ESG brings about cannot offset the cost it incurs.

There are many studies on ESG and ESG impacts, however, previous studies on ESG only looked at one dimension of ESG, ESG cognition, or ESG performance. This is one of the first studies to shed light on the process from ESG awareness to ESG practices and finally to banks' financial performance. In the research, two main questions are attempted:

RQ1: Does ESG awareness affect the Vietnamese commercial banks' performance?

RQ2: Is the impact of ESG awareness on banking performance direct, or do ESG practices mediate it?

The rest of the paper is structured as follows. Section 2 synthesizes relevant studies to formulate hypotheses. Section 3 outlines the data collection process and describes the measurement scales used. Section 4 tests the hypotheses and discusses the findings. Section 5 concludes the paper, offers recommendations, and identifies the research limitations and also the direction for future study on the topic.

2. LITERATURE REVIEW

Esteban-Sanchez et al. (2017) analyze the effect of corporate social performance on corporate financial performance. The authors utilize a dataset of 154 financial entities in 22 countries from 2005–2010. The study employs panel regression analysis to examine the relationship between corporate social responsibility and bank performance metrics. The results show the effect of each corporate social dimension on its performance indicators, proxied by return on equity (ROE) and return on assets (ROA). Companies with good corporate governance and labor performance will have better financial performance. The research highlights the importance of integrating corporate social performance into a bank's corporate governance mechanism.

El Khoury et al. (2023) investigate the relationship between ESG and bank performance in the Middle East, North Africa, and Turkey (MENAT) region. The research uses a sample of 46 listed banks in the period 2007–2019 with accounting ratios (ROE, ROA) and market indicators (Tobin's Q, stock return) representing the bank's financial performance. The effect of ESG on financial performance is tested with controlling variables of bank-specific, macroeconomic, and financial development variables. The research provides evidence for nonlinear relationships between ESG and financial performance. In the first stage, ESG positively increases financial performance, however, this impact becomes negative when investment in ESG reaches a higher level. The research suggests that banks determine the turning point to perform ESG effectively.

Gautam and Sharma (2023) confirm the growing importance of environmental and social concerns in recent years and the essential role of banks in the growth of the economy. The authors examine how ESG factors affect the financial performance of private banks in India. ROA, net profit ratio, and Tobin's Q are used to present the financial health of commercial banks. The research shows a difference in the financial performance of high ESG banks and low ESG banks and asserts the positive impact of ESG factors on the profitability and share price of commercial banks. Kouzez et al. (2024) explore the relationship between ESG and bank financial performance among foreign-owned and domestic-owned banks. ROA, net interest margin (NIM), and non-performing loans are chosen as dependent variables. The results show that the positive impacts of ESG on financial performance only exist with foreign-owned banks, which implies that ESG helps these banks to obtain legitimacy and reputation in foreign markets.

NIM is also considered the most appropriate criterion for evaluating the effectiveness and stability of banks' management. NIM outweighs ROA in illustrating how well a bank can manage its interest-bearing assets — the major assets of commercial banks (Saksonova, 2014; Chang et al., 2013). Loan et al. (2024) examine whether ESG disclosure impacts the financial performance of 24 commercial banks in Vietnam. ROA, ROE, and NIM are chosen as dependent variables. Based on panel data from 2018 to 2022, the authors use the feasible generalized least squares (GLS) estimation method, and the findings confirm the positive effects of ESG policy disclosure on bank financial performance.

Isik (2023) employs an unbalanced dataset of 58 commercial banks from six countries (Canada, the UK, Australia, Japan, Spain, and Turkey) from 2012 to 2020 to explore the effect of ESG activities on financial performance in the banking sector. The findings reveal the impact of ESG on financial performance, however, this relationship is not consistent among countries. In Canada, the UK, and Japan, the relationship is non-linear; in Australia and

Spain, ESG scores positively impact the financial performance of commercial banks, but in Turkey, there is no relationship between ESG practices and banks' profitability. This finding suggests an important recommendation for bank managers to consider all the conditions for implementing appropriate strategies to implement ESG activities.

Therefore, the first hypothesis is proposed as follows.

H1: ESG practices positively impact banks' financial performance.

According to Beauchamp et al. (2019), ESG awareness is the ability to understand ESG issues which is fundamental for behavior and decision-making. Wang et al. (2022) examine the relationship between executives' ESG cognition and enterprise green innovation. The research uses textual analysis to measure executives' ESG cognition based on data from executives' microblogs. The result shows the positive impacts of ESG cognition on corporate green innovation and suggests a strategy to increase ESG awareness among executives.

When executives have an understanding of ESG benefits to the company and society, such as reducing emissions, labor protection, and sustainable development, they are willing to implement ESG and have a strategic plan for the employees to perform ESG practices (Cheng et al., 2014; Saha et al., 2023). The research of Wu et al. (2024) examines the mechanisms of executives' green cognition on the performance of a company's green innovation by using data from Chinese A-share listed companies for the period 2012–2021. The results prove the significant positive impacts of green cognition on green innovation performance. The research also explores the mechanism of the effect of green cognition on green technology innovation and finds the mediating role of ESG performance, ESG performance promotes that effect. The result concludes with policy recommendations for enhancing executives' green awareness and ESG performance. Agnese et al. (2024) investigate the influence of the knowledge endowment of directors on the ESG performance in the banking industry in Europe. The authors apply the generalized method of moments (GMM) two-step analysis on a data sample of 115 banks between 2014 and 2022 and find empirical evidence that board knowledge affects ESG performance in the banking industry.

According to signaling theory, ESG performance plays an essential role in transmitting information about ESG cognition to the outside world. Corporations with good ESG performance show the intention to implement sustainable development proactively. They might achieve a better environmental image and an environmentally friendly reputation, which attracts the interest of the public. Corporations should have opportunities to receive tax incentives, environmental subsidies, and green bonds, which provide more financing channels, and financial support for the business. As a result, it might help to improve the financial performance of the corporation (Xue et al., 2023; Tian et al., 2024).

Hence, the authors propose the following hypotheses.

H2: ESG awareness impacts positively on ESG practices.

H3: ESG practices have a mediating effect on the relationship between ESG awareness and banking performance.

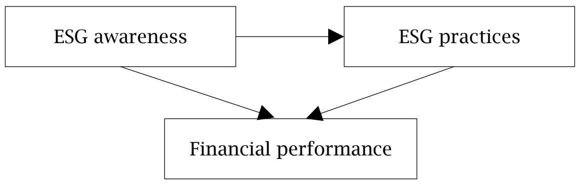
3. METHODOLOGY

There are several methods suitable for testing the impacts of ESG on financial performance, including interviews, surveys, case study analysis, and empirical analysis. In the context of banking sectors in Vietnam, interviews and surveys have been proven to be the most suitable method because there is no public disclosure of the ESG index, and commercial banks are not compulsory to publish sustainability reports. Therefore, only a few banks publish separate sustainability reports, some other banks integrate sustainability reports into their annual reports, and some banks still do not provide sustainability information in their published reports. From the literature review, the questionnaire is first drafted and then consulted with the bank's managers and staff. The opinion of these experts offers insights into the situation of ESG awareness and ESG practices in commercial banks and is valuable for the authors to revise the questionnaire.

3.1. Research models

To test the relationships between ESG awareness, ESG practices, and the financial performance of commercial banks, the authors proposed the model as follows:

Figure 1. Research model



Source: Authors' elaboration.

From the literature review, it can be seen that when banks successfully disseminate knowledge about ESG to their staff, the ESG practices of individuals might improve. As the behavior of each individual improves, the ESG performance of the entire organization will be enhanced. Through channels that impact environmental protection, promote social responsibility, and ensure transparent governance, the financial performance of commercial banks will increase.

3.2. Research data

The dataset of the research includes ESG awareness, ESG practices, and financial performance of 21 Vietnamese commercial banks. These 21 banks were selected randomly; the total assets of these 21 banks account for more than 70% of the total assets of the banking sector, ensuring the representativeness of the sample.

ESG awareness and ESG practices are measured with data collected from a developed questionnaire in consultation with experts from commercial banks. The survey was conducted from February 9, 2024, to March 3, 2024, at banks' branches, transaction offices, and headquarters in Hanoi. Two hundred eighty-seven (287) responses were collected, of which 271 were valid.

To measure banking performance at Vietnamese commercial banks, the authors used secondary data from 2023 financial statements published by these banks.

3.3. Research variables and measurement scales

After consulting with experts and synthesizing previous studies, the authors developed the questionnaire on ESG awareness and ESG practices with a 5-level Likert scale from level (1) completely disagree to level (5) completely agree, and the banks' financial performance indicators are also chosen as below.

3.3.1. ESG awareness

To assess ESG awareness (*NT*), a total of 19 questions were asked. There were six questions about E awareness (from *NT1* to *NT6*), eight questions about S awareness (from *NT7* to *NT14*), and five questions about G awareness (from *NT15* to *NT19*). The content of the questions is summarized in Figure 2.

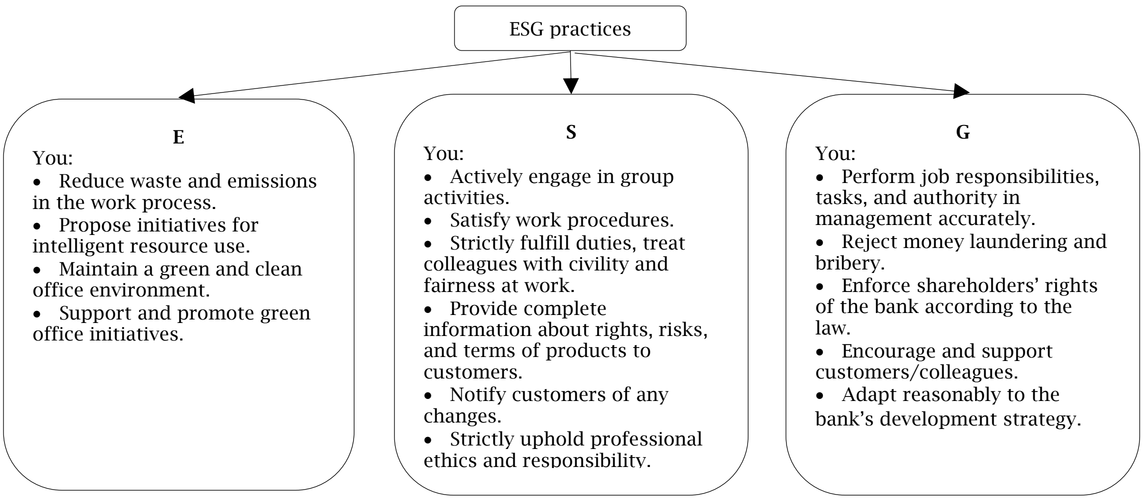
Figure 2. ESG awareness questions

Source: Authors' elaboration.

3.3.2. ESG practices

A questionnaire of 17 questions was constructed with a 5-level Likert scale from level (1) never to level (5) very often to test the level of ESG practices (*HV*) at banks. There were four questions about E practices (from *HV1* to *HV4*), eight questions about S practices (from *HV5* to *HV12*), and five questions about G practices (from *HV13* to *HV17*).

Figure 3. ESG practices questions



Source: Authors' elaboration.

3.3.3. Banking performance

To measure banks' financial performance (*HQ*), subjective measurement methods were used, including assessments based on predefined financial variables as shown in Table 1.

Table 1. Business performance of commercial banks

Variable	*Business performance of commercial banks*	*Source*
HQ1	The completion of the bank's EBIT target	Gautam and Sharma (2023), Kouzez et al. (2024)
HQ2	The completion of the bank's ROA target	
HQ3	The completion of the bank's NIM target	

Source: Authors' elaboration.

The actual completion rates of earnings before interest and taxes (EBIT), ROA, and NIM are calculated and compared to the banks' 2023 goals. The numbers were consulted with independent experts of the banking industry in Vietnam and converted to the Likert scale according to this rule: Level 1: the rates < 70%; Level 2: 70% ≤ the rates < 80%; Level 3: 80% ≤ the rates < 100%; Level 4: 100% ≤ the rates < 120%; Level 5: the rates ≥ 120%.

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Demographic indices of respondents

The survey was conducted both directly at banks' branches and online via email at 21 commercial banks in the period from February to March 2024. Information retrieved from the survey was used for data analysis and discussion. The demographic characteristics of respondents in the survey are presented in Table 2.

Table 2. Descriptive statistics of respondents

Group	*Component*	*Frequency*	*Percentage (%)*
Gender	Male	62	22.88
	Female	209	77.12
Age	Under 25	138	50.92
	25–35	106	39.11
	35–45	26	9.6
	Over 45	1	0.37
Education level	University	203	74.91
	Post-graduate	68	25.09
Job position	Senior executive (Director)	7	2.58
	Middle management	23	8.49
	Headquarter expert	1	0.37
	Executive board member	2	0.74
	Employees	238	87.82
Years of experience	Less than 5 years	190	70.11
	5–10 years	59	21.77
	10–15 years	16	5.9
	15–20 years	6	2.21

Source: Authors' calculations from the survey.

Seventy-seven point twelve (77.12) percent of respondents are female, while 62% are male. Regarding education, most of the respondents (74.91%) have a bachelor's degree, and only 25.09% have a post-graduate degree. This is reasonable as 87.82% of respondents are staff at banks and only 12.18% are managers at different levels, 70.11% are staff with less than five years, and 19.81% are staff with more than five years of experience.

4.1.2. The reliability of the scale

Necessary tests for the reliability of the scale were conducted, including the reliability of the scale (reliability validity), discriminant validity, and multicollinearity between variables (collinearity).

Table 3. Testing the reliability of the scale (reliability validity)

Variable	*Cronbach's alpha*	*Composite reliability (CR)*	*Total variance extracted (AVE)*
Performance variable (*HQ*)	0.797	0.860	0.682
Practices variable (*HV*)	0.871	0.896	0.489
Awareness variable (*NT*)	0.928	0.938	0.536

Source: Authors' calculations using SmartPLS 4 software.

Hair et al. (2009) suggested Cronbach's alpha reliability coefficients, average variance extracted (AVE), and partial reliability (CR) should be greater than or equal to, respectively, 0.6, 0.7, and 0.5 to ensure that the questions in the survey are truly related to the variable to be measured. Cronbach's alpha coefficient should be in the range [0,1]. In theory, the higher this coefficient, the more reliable the scale is. According to Table 3, the Cronbach's alpha reliability coefficient and partial reliability of the variables *HQ*, *HV*, and *NT* are all greater than 0.6 and 0.7. The average variance extracted of the two variables, *HQ* and *NT*, is greater than 0.5, but the AVE of the *HV* variable is 0.489, less than 0.5, but the difference from the standard level is not significant, so it will have little effect on the variables. In general, the variables in the model can ensure the reliability of the quantitative analysis.

Table 4. Discriminant validity test

Variable	*Heterotrait-Monotrait ratio (HTMT)*			*Fornell-Lacker criteria*		
	HQ	*HV*	*NT*	*HQ*	*HV*	*NT*
HQ				0.826		
HV	0.194			0.196	0.699	
NT	0.130	0.459		0.118	0.436	0.732

Source: Authors' calculations using SmartPLS 4 software.

The discrimination test aims to evaluate the quality of the factors as well as the observed variables of the endogenous factors in the model. According to research by Fornell and Larcker (1981) and Barclay et al. (1995), it has been proposed that the AVE of each variable must be greater than the correlation coefficient between different variables. In this model, the correlation coefficient between the two variables *HV* and *HQ* is larger than the AVE of these two variables. Another test used to investigate the discrimination of the scale is the Heterotrait-Monotrait ratio (HTMT). The HTMT index for a pair of hidden variables should be low, less than or equal to 0.9, to ensure good discrimination between hidden variables in the model. Table 4 shows HTMT for variables is lower than 0.5.

The variance inflation factor (VIF) is tested for multicollinearity. From the variables *HQ1* to *HQ3*, the variables *HV3* to *HV12*, and the variables *NT1* to *NT14* were all less than 5, so they did not violate the multicollinearity assumption. This showed a moderate correlation between a certain independent variable and other independent variables in the model. Table 5 implies that the current data does not violate multicollinearity.

Table 5. Multicollinearity test (VIF)

Variable	*Value*	*Variable*	*Value*
HQ1	2.533	*NT1*	2.465
HQ2	4.015	*NT10*	1.889
HQ3	1.997	*NT11*	1.951
HV10	1.945	*NT12*	2.603
HV11	2.067	*NT13*	2.281
HV12	2.157	*NT14*	2.121
HV3	1.504	*NT2*	3.055
HV4	1.495	*NT3*	2.576
HV5	1.942	*NT4*	2.692
HV6	1.749	*NT5*	2.558
HV8	1.697	*NT6*	2.294
HV9	1.923	*NT7*	2.123
		NT8	2.053

Source: Authors' calculations using SmartPLS 4 software.

4.1.3. Hypotheses H1 and H2

The results showed that *H1* was accepted at a 95% significance level (p-values < 0.05). The impact coefficient of the *HV* variable on the *HQ* variable was 0.178. This value is greater than 0, showing that strategies to implement ESG at banks have positive impacts on banking performance.

Besides, *H2* was accepted at a 99% significance level (p-values < 0.01). The impact coefficient of the *NT* variable on the *HV* variable was 0.436. The result shows that when banks improve by 1 point in ESG awareness, ESG practices are improved by 0.436 points.

Table 6. *H1* and *H2* testing

Hypothesis	*Coefficient*	*Standard deviation*	*T-statistics*	*p-values*	*Conclusion*
H1: HV ⟶ *HQ*	0.178	0.074	2.398	0.017	Accept the hypothesis
H2: NT ⟶ *HV*	0.436	0.044	9.814	0.000	Accept the hypothesis

Source: Authors' calculations using SmartPLS 4 software.

4.1.4. F-square (f^2) of the model

After testing using Cohen's impact measurement, the impact coefficient f^2 of Table 7, the values $f^2 = 0.001$ and $f^2 = 0.027$, respectively, showed that ESG awareness and ESG practices have a small impact on banking performance. ESG awareness has a big impact on ESG practices when $f^2 = 0.234$.

Table 7. Impact efficiency (f^2) of the model

Relationship	*f-squared (f^2)*	*Influence level*
HV ⟶ *HQ*	0.027	Small impact
NT ⟶ *HQ*	0.001	Small impact
NT ⟶ *HV*	0.234	Big impact

Source: Authors' calculations using SmartPLS 4 software.

4.1.5. Hypothesis H3

To emphasize the mediating role of ESG practices in the relationship between ESG awareness and the banking performance of commercial banks, we examined the impact of ESG awareness on banking performance without the mediating variable.

The results showed that this relationship was not accepted with a confidence interval of 99% and a p-value of 0.563 (p-value > 0.01). This result confirms no direct impact of ESG awareness on the financial performance of commercial banks.

Table 8. Testing the relationship between ESG awareness and banking performance without ESG practices

Relationship	*Coefficient*	*Standard deviation*	*T-statistics*	*p-values*	*Conclusion*
NT ⟶ *HQ*	0.040	0.070	0.578	0.563	Do not accept the hypothesis

Source: Authors' calculations using SmartPLS 4 software.

Table 9. Testing the mediating role of ESG practices in the relationship between ESG awareness and banking performance

Relationship	*Coefficient*	*Standard deviation*	*T-statistic*	*p-values*	*Conclusion*
H3: NT ⟶ *HV* ⟶ *HQ*	0.078	0.034	2.284	0.022	Accept the hypothesis

Source: Authors' calculations using SmartPLS 4 software.

The above result showed that *H3* was accepted at a 95% significance level (p-values < 0.05). The intermediate impact coefficient was 0.078. This result asserts the important role of the mediating variable, ESG practices, in enhancing the impact of ESG awareness on banks' financial performance.

This result also implies that enhancing employees' ESG awareness has a positive impact on banking performance when the awareness is expressed in the form of ESG practices.

4.2. Discussion

One of the findings of the research is to confirm the positive relationship between ESG awareness and ESG practices, ESG practices, and banking performance. The result shows that ESG awareness significantly enhances ESG practices. When bankers perceive the role of banks in sustainable development, and understand the benefit that ESG activities bring about to their bank and society in general, they are likely to implement ESG practices in their day-to-day activities. This result is consistent with Wu et al. (2024) and Sahoo et al. (2023). The result also certifies that ESG practices positively improve financial performance. This relationship is also found in Esteban-Sanchez et al. (2017), El Khoury et al. (2023), and Isik (2023). According to signaling theory, good ESG practices enhance the image of the company in the public, and the company will improve its environmental reputation among its main stakeholders. As a result, the company will have more chances for fundraising, such as issuing green bonds, receiving environmental subsidies, and more possibilities to improve financial performance.

Testing the impacts of ESG awareness on financial performance, the authors found no direct relationship between ESG awareness and the financial performance of Vietnam commercial banks. The other important finding of the study is the mediating role of ESG practices. This finding aligns with the empirical results found in Wu et al. (2024), Xue et al. (2023), and Tian et al. (2024). ESG awareness does not directly impact banking performance, but ESG practices mediate this relationship. ESG practices act as a mediator, improving the effect of ESG awareness on financial performance. Research results showed that when ESG awareness is improved, ESG practices will be promoted, which will lead to an increase in NIM, EBIT, and ROA.

5. CONCLUSION

Though there are many studies on ESG and ESG impacts on financial performance, this is one of the first studies to explore the relationship between ESG awareness, ESG practices, and financial performance at commercial banks in Vietnam.

The findings of the research reveal that ESG awareness has a significantly positive impact on ESG practice, and ESG practices have a positive impact on banking performance. This indicates that the higher the ESG awareness, the higher the ESG performance, the better the financial performance of commercial banks. The result also confirms the mediating role of ESG practices in the relationship between ESG awareness and banking performance. The findings support the recommendations that Vietnamese commercial banks should integrate ESG into their strategy and have plans to improve ESG awareness among bank staff. In the meantime, Vietnamese commercial banks should actively implement activities to promote the effectiveness of the mechanism between ESG awareness and financial performance by enhancing the banks' ESG performance.

However, the study has certain limitations that open up opportunities for future research. Firstly, the data regarding ESG awareness and practices were gathered in Hanoi, the capital of Vietnam, with a limited number of respondents, which might impact the representativeness of the study. Future studies should seek to collect more randomized and representative data on ESG awareness and practices from various provinces in Vietnam. Secondly, the financial performance of banks is proxied by accounting ratios (EBIT, ROA, and NIM) and is converted to a Likert scale with the consultation of commercial banks' experts. This might lead to subjective issues in doing research. By solving the above issues, future research might contribute to a profound understanding of the relationship between ESG awareness, ESG practices, and the financial performance of commercial banks. This encourages Vietnamese commercial banks to pay more attention to ESG dimensions and have effective strategies to improve ESG awareness and ESG practices, which in turn improve the profitability of the commercial banks and contribute to the sustainable development of the world.

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APPENDIX. ESG QUESTIONNAIRE

Table A.1. ESG awareness

Symbol	***ESG awareness***	***Source***
	Environmental awareness (E)	Hassan Al-Tamimi (2014), Aldosari (2017)
NT1	Does the bank make efforts to reduce emissions and waste in its operations (e.g., recycling damaged photocopy paper, used paper, reducing plastic bottle/box usage, office supplies, etc.)?	
NT2	Does the bank have measures in place to promote resource efficiency (e.g., setting limits on electricity, water, and phone usage; efficient energy management)?	
NT3	Does the bank support initiatives by employees to protect the surrounding environment (e.g., organizing competitions, rewarding innovative ideas for environmental protection)?	
NT4	Does the bank make efforts to restore and protect the natural environment around its business locations (e.g., maintaining environmental hygiene, implementing proper waste disposal methods, having green plants in offices)?	
NT5	Does the bank promote resource efficiency and waste reduction to all employees (e.g., encouraging turning off lights during lunch breaks, guiding paper-saving printer usage)?	
NT6	In lending activities, does the bank consider environmental factors when evaluating investment projects (e.g., prioritizing green loans that focus on environmental protection, addressing current environmental issues, reducing plastic waste, and supporting environmentally friendly and non-polluting products)?	
	Social awareness (S)	
NT7	Does the bank have social welfare policies that ensure fairness for all employees?	
NT8	Does the bank provide a workspace that meets basic needs for the office environment (e.g., safety, comfort, providing necessary equipment for work)?	
NT9	Does the bank have channels for employees to contribute feedback (e.g., suggestion boxes, anonymous evaluation forms)?	
NT10	Does the bank consider employees' suggestions and proposals during its operations (e.g., listening to employees' ideas for improving workspace convenience, enhancing facilities based on legitimate employee needs)?	
NT11	Does the bank engage in social and community welfare activities (e.g., organizing large charity runs to promote healthy living, supporting infrastructure development for children in remote areas, planting trees, etc.)?	
NH12	Does the bank have special policies to support disadvantaged communities (e.g., prioritizing services for disabled individuals at branches, offering scholarships to impoverished students)?	
NT13	Does the bank consider the social benefits of investment projects when evaluating loans (e.g., prioritizing loans for projects like building schools for children in remote areas, creating water systems for ethnic minority communities)?	
NT14	Does the bank offer products and services that benefit society and the community?	
	Governance awareness (G)	
NT15	Does the bank implement clear delegation and definition of roles, responsibilities, and authority for individuals and organizations in management operations?	
NT16	Does the bank regularly conduct checks, audits, and internal controls according to planned and unplanned schedules?	
NT17	Does the bank have penalties or sanctions for actions driven by personal gain (e.g., corruption, unethical benefits derived from a position of power)?	
NT18	Does the bank have a development strategy that optimizes profit while fulfilling environmental and social responsibilities (e.g., ensuring no environmental degradation for profit, paying taxes in full as required by law)?	
NT19	Does the bank have a vision for holistic development (e.g., improving products and services to ensure access for all individuals and businesses, especially for vulnerable groups, such as the poor, minorities, and small businesses)?	

Table A.2. ESG practices

Symbol	ESG practices	Source
	Environmental practices (E)	Hassan Al-Tamimi (2014), Aldosari (2017)
HV1	Do you make efforts to reduce emissions and waste in your daily work (e.g., recycling used photocopy paper, using a personal water bottle and glass lunch box instead of plastic bottles/boxes, using office supplies responsibly)?	
HV2	Do you take measures or initiatives to use resources wisely (e.g., printing economically, turning off computer screens when not in use)?	
HV3	Do you maintain a green, clean, and pleasant office environment, creating a workspace that is eco-friendly (e.g., cleaning up your workspace after use, turning off lights, and not using air conditioning when unnecessary)?	
HV4	Do you support and promote efforts to build a green office (e.g., encouraging others to plant small potted plants, actively participating in promoting the efficient use of office equipment)?	
	Social practices (S)	
HV5	Do you actively participate in organizational activities (e.g., political and social activities, collective work-related events)?	
HV6	Are you satisfied with your work environment (e.g., being free to express personal opinions, being satisfied with the facilities provided by your workplace)?	
HV7	Do you participate in the bank's monthly feedback and evaluation of the work environment?	
HV8	Do you fulfill your professional duties and treat colleagues with respect and fairness in your work?	
HV9	Do you apply special bank policies for specific groups using the bank's services (e.g., prioritizing services for disabled people at branches, offering preferential interest rates and fees for individuals under the social credit program)?	
HV10	Do you provide full information to customers about the benefits, risks, and terms of products and fees when advising them?	
HV11	Do you adhere to ethical standards when selling products (e.g., not pressuring customers to buy products, ensuring you sell exactly what customers want to buy/sell)?	
HV12	Do you inform customers about any changes or new requirements related to the products they use at the bank (e.g., changes in terms, changes in account management staff, changes in service fees)?	
	Governance practices (G)	
HV13	Do you carry out your work according to the defined roles, responsibilities, and authority within the management operations?	
HV14	Do you reject money laundering, bribery, or receiving bribes in your work (e.g., immediately reporting such activities to management)?	
HV15	Do you participate in implementing shareholders' rights as prescribed by law (e.g., informing shareholders of changes in the board of directors in the bank's report)?	
HV16	Do you regularly encourage and motivate both customers and colleagues in the bank's activities and programs?	
HV17	Are you collaborative, adaptable, and aligned with the bank's development strategy (e.g., supporting community campaigns and staying updated on new banking regulations to contribute to building a sustainable bank)?	