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The Relationship between Corporate Social Responsibility and Corporate Financial Performance: An Empirical Study of Commercial Banks in Vietnam

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Abstract

This article aims to examine the one-way relationship between corporate social responsibility (CSR) and the financial performance of Vietnamese commercial banks, mainly focusing on the moderating role of ownership structure. Net interest margin (NIM), return on assets (ROA), and return on equity (ROE) are selected to represent the financial performance of the bank. CSR was measured using a multi-method approach that included both quantitative and qualitative methods. Corporate Social Responsibility Expenditure (CSRE) was estimated using financial data. The Corporate Social Responsibility Disclosure (CSRD) index was created using the content analysis method. Using a sample of Vietnamese commercial banks from 2012 to 2019 to perform regressions in the dynamic panel models with the two-step system generalized method of moments (GMM) estimator, the results show a positive effect of both CSRE and CSRD on the financial performance of the bank. Empirical evidence shows that the positive relationship between CSRE and financial performance is more robust in state-controlled banks than non-state-controlled banks. In contrast, the positive impact of CSRD on the financial performance of state-owned commercial banks is weaker than that of private banks. Finally, the paper points out the limitations and proposes future research directions.

Keywords: Commercial Banks, CSR, Disclosure, Expenditure, Financial Performance

JEL Classification Code: M10, M14, M21

1. Introduction

Nowadays, the concept of CSR has appeared as one of the most critical concerns for directors and has developed the subject of intense academic debate (Ehsan et al., 2018). Many firms have adopted CSR activities because CSR is an essential part of today's complex and competitive business environment (Zahari et al., 2020). Another trend is the outstanding development of science and technology; the Internet has become one tool that allows companies

to publish more information at a lower cost and faster than ever. So, businesses are increasingly interested in ethical, responsible disclosure of information to stakeholders through the media (Wanderley et al., 2008).

Banks play an essential role in the economy and are subject to increasing expectations from stakeholders. Around the world, after the financial crisis of 2008–2009, the behavior of financial institutions was questioned. Many different scholars have tried to research specifically on CSR in the banking sector (Belasri et al., 2020). In banking CSR topics, the focus is on the relationship between CSR and financial performance because the impact of CSR on banks' profitability is still controversial.

Not only exploring the relationship between CSR and corporate financial performance (CFP) (Nguyen & Nguyen, 2021), scholars also try to open the "black box" between them, that is, the moderator. Moderating effect is the effect that occurs when a third variable changes the nature of the relationship between a predictor and an outcome, particularly in analyses such as multiple regression. The third variable

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is called the moderator. By examining moderators, more nuanced insights beyond the direct CSR-CFP relationship can be derived (Ye et al., 2021).

Like China, the Vietnamese economy is characterized by the existence of enterprises in which the State holds control. These are enterprises established with 100% capital from the State budget or joint-stock companies with a State share capital ratio of 50% or more. The banking industry is no exception. In Vietnam's commercial banking system, there are four banks over which the State retains control. As of December 31, 2019, the total assets of these banks reached over 5.4 million billion VND (equivalent to 233.5 million USD), increasing nearly fourfold within ten years and accounting for over 50% of the total assets of the entire commercial banking system. The influence of these banks on monetary, banking, and other activities is enormous, oriented to the whole banking system. State commercial banks can implement and disclose environmental responsibility information in the direction of the State rather than for financial interests. According to Wang et al. (2014), decisions of state-controlled enterprises are usually made based on the Government's objectives. Therefore, state control in commercial banks is also one of the essential factors to be considered.

Empirical evidence of CSR's impact on the financial performance of Vietnamese commercial banks has been found (Nguyen, 2018; Tran et al., 2021). However, the study (1) uses a multi-methodological approach to measure CSR of banks and (2) looks at the moderating role of ownership structures to the CSR-CFP relationship that has not been found. This study provides significant contributions to the material. First, it provides empirical evidence for the debate about the relationship between CSR and the CFP. Second, to the author's knowledge, this is one of the few studies looking at the regulatory impact of the ownership structure, mainly focusing on the context of Vietnam (a developing country) and the banking sector (an industry that has distinct characteristics from other professions). Most previous studies have been conducted in developed countries. A handful of studies have explored the regulatory role of ownership structures in emerging economies, for example, China. However, similar research in the context of Vietnam is almost nil. Therefore, this study is of considerable importance to examine theories that explain the CSR-CFP relationship and provide further evidence of this alignment in emerging economies.

2. Literature Review and Hypotheses Development

The past years have seen the "bloom" of CSR-related announcements and the bank's financial performance

demonstrate the considerable appeal of the topic to scholars. However, the high CSR associated with improved financial performance is the conclusion that remains controversial (Wu et al., 2017). An overview of previous research works, finding conclusions on the impact of spending, and publishing CSR information on the financial performance of banks is the basis for forming research hypotheses, specifically as follows.

2.1. The Impact of CSR on the Bank's Financial Performance

Conclusions on the impact of CSRE on a bank's financial performance in published works vary widely, finding a positive, mixed effect, or no statistically significant relationship. Bani-Khaled et al. (2021) found a positive, statistically significant relationship between CSRE and the financial performance of Jordanian commercial banks over the period 2008–2018. Similarly, Daniel (2014) found a positive impact of investment in CSR on the financial performance of 44 Kenyan commercial banks during 2009–2013. Zhu et al. (2017) used "social contribution value per share" to represent CSR. Empirical results showed that an increase in CSR activities often leads to a growth in conditional efficiency. CSR's impact on financial performance as measured by Net Profit is more apparent than the non-performing loan. Madugba and Okafor (2016) surveyed a sample of Nigeria's listed banks in 2010–2014, using the bank's donation and charity to measure CSR; the regression results showed that CSRE has a negative relationship with earnings per share and dividend per share while having a positive relationship with ROE. In contrast, Tuhin (2014) showed no significant impact of CSRE on the financial performance of Islamic banks in Bangladesh in the period 2007–2011.

From the above discussions, this paper seeks to provide empirical evidence from the perspective of a developing country to verify whether investing in CSR activities has a positive impact on a bank's financial performance. Therefore, the first research hypothesis is as follows:

H1: *CSRE has a positive effect on the financial performance of commercial banks.*

The importance of CSR activities for businesses and their reporting has increased in recent years because of increasing community, media, scholarly, and regulatory awareness and attention. In response, corporations are increasingly disclosing their CSR practices to meet their stakeholders' diverse interests and establish a positive image in the market and society (Ehsan et al., 2018). Researchers have used content analysis to convert qualitative information into quantitative data from the published

business information for the research process. Evidence on the impact of CSRD on the financial performance of banks has appeared in many studies; however, the conclusions obtained are not uniform. Mallin et al. (2014) highlighted the positive association between CSRD and financial performance when studying a sample of 90 Islamic banks in 13 countries. Similarly, Bidhari et al. (2013) concluded that CSRD affects all measurements of financial performance (including ROA, ROE, profit-to-sales ratio, and Tobin's Q).

Matuszaka and Róžańska (2017) conducted a study to examine the impact of CSRD on ROA, ROE, and NIM of Polish banks. The results showed that CSRD does not significantly predict accounting profit. Similarly, Mosaid and Boutti (2012) did not discover a statistically significant connection between CSRD and ROA and ROE of Islamic banks. Oyewumi et al. (2018) used panel data from 21 banks in Nigeria between 2010–2014 to examine the effects of CSRD on ROA. Regression results indicated that disclosing CSR activities has a significant and positive impact on ROA while investment in CSR harms ROA. That is to say, investing only in CSR activities without a network to disclose those activities to stakeholders will not positively affect financial performance; instead, CSR activities will only drain financial resources.

Based on the above evidence, this research investigates the impact of CSRD on the financial performance of Vietnamese commercial banks. Assuming commercial banks publish all CSR activities in the media, the following second research hypothesis is formed:

H2: CSRD has a positive effect on the financial performance of commercial banks.

2.2. Moderating Effect of Ownership Structure

According to Ali et al. (2019), ownership structure affects the relationship between the stakeholders of a firm. The most forceful stakeholder (Government) facilitates state-owned enterprises (SOEs) in financial difficulty because of CSR involvement. Therefore, CSR will have a positive impact on the financial performance of these businesses. However, Li et al. (2013) showed that the link of CSR-CFP in SOEs is weaker than in non-SOEs and pointed out three reasons for the difference: (1) The goals of SOEs include social objectives along with economic goals; (2) No matter how profitable, SOEs need to legitimize their position and be able to implement CSR; (3) Government agencies regularly evaluate executives of SOEs, and their promotion may be contingent on the assessment in which social orientation is also treated. In contrast, non-SOEs are not subject to government constraints and directions. They implement and disclose CSR information stemming from the tangible and intangible benefits. For example, attracting

new talent and retaining good employees, increasing opportunities to access new markets, improving loyalty and dealing with risk, attracting new investors and customers, improving labor productivity, preventing legal violations, enhancing the quality of products and services, improving brand value and corporate reputation, and improve CFP (Bui & Huynh, 2020).

In the 90s, Vietnam's commercial banking system had only nine banks, including four state-owned commercial banks. However, after the State Council passed two Ordinances on Banking in May 1990, the banking system began a dramatic transformation. By 1996, Vietnamese banks had increased to 76 (including four state-owned commercial banks, 48 private commercial banks, and the rest were joint venture banks and foreign bank branches). From the early 2000s, the Government of Vietnam had a plan to equitize state-owned commercial banks to bring the banking and finance sector to par with other countries in the region. As a result, three state-owned commercial banks were equitized. However, the State still maintains enough shares to retain voting control and political influence over these banks. Board members and executives of state-owned commercial banks tend to make decisions on behalf of the government's interests regarding various objectives, i.e., social goals in addition to economic interests. From the above arguments, the author hypothesizes:

H3: The positive relationship between CSR and financial performance is weaker in state-owned commercial banks than in private commercial banks.

Combining the assumptions presented above, the author forms a theoretical model for my research as follows (Figure 1).

3. Research Methods

3.1. Research Sample

Research subjects are all Vietnamese commercial banks. The list includes 35 banks (this list does not include Joint

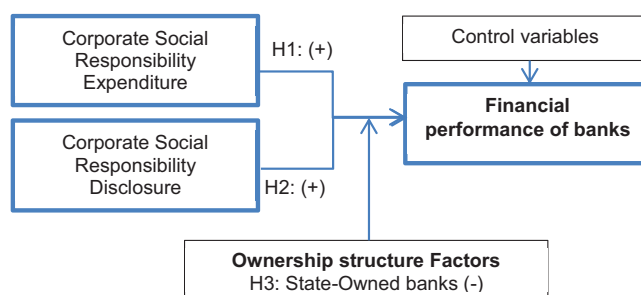


Figure 1: The Research Framework

Venture banks and banks with 100% foreign capital). Annual reports and financial statements of banks are searched and downloaded. As a result, there are 29 fully publicized banks in the period 2012–2019. Therefore, the final study sample is 29 banks, the number of observations is 232.

3.2. Research Model

To test the hypotheses, the author uses the following formulas in turn:

$$Y_{it} = \alpha + \beta X_{it} + \delta \text{ Control Variables} + \varepsilon \quad (1)$$

$$Y_{it} = \alpha + \beta X_{it} + \mu \times \text{DSOB}_{it} + \theta X_{it} \text{DSOB}_{it} + \delta \text{ Control Variables} + \varepsilon \quad (2)$$

In which:

Y is the independent variable. Y is NIM, ROA, and ROE, respectively. NIM is measured as Net Interest Income to Average Total Profitable Assets. ROA is the proportion of Profit After Tax to Average Total Assets. Similarly, ROE is the ratio of Net Profit to Average Equity.

X is the independent variable. This study uses two approaches to establish two separate measures of CSR, quantitative and qualitative, for an in-depth analysis of CSR activities of Vietnamese commercial banks.

The financial approach is the first method employed to compute CSRE. Specifically, it is the monetary data of banks (in millions of VND) for three aspects of CSR (including spending on employees, spending on the community, and the amount of corporate income tax paid in the year). The choice of these three dimensions comes from the theory of stakeholders. According to Freeman (1984), a business can only survive if it can meet the demands of its stakeholders, who have a significant impact on its profitability. Employees, communities, and governments are important stakeholders who determine the survival and growth of the company. Another reason is the limitation of data in annual reports and financial statements of commercial banks. After collecting data on each aspect of CSR, the bank's total CSR expenditure is calculated as the total amount spent on all three dimensions. Finally, CSRE is calculated by taking the logarithm of total CSR expenditure.

The second approach is the content analysis method to extract information about a bank's CSR published in its annual reports, financial statements, or website for 2012–2019. The CSR metrics are divided into three components: environmental responsibility (10 criteria), employee responsibility (14 criteria), and community responsibility (8 criteria). This criteria system forms a "proof collection and CSR grading" form by the bank (referred to as the scorecard). Each bank corresponding to a year will be selected and marked on the scorecard. Proofs are words,

phrases, sentences, paragraphs, figures, images related to the criterion. The proof will be filled in the scorecard in two ways: (1) For PDF files that can be copied through the Microsoft Edge software, the author will copy the relevant information and paste it into the scorecard; (2) In the case of data files in the form of scan (copying is not allowed), the author will use the image saving tool (Snipping Tool), then paste the image of related contents into the scorecard. Items that are not proven will be left blank. Following previous studies, the indicators proved to be graded "1" point, and the opposite case is "0" points (Bidhari et al., 2013; Hafez, 2015; Harun et al., 2020; Zahari et al., 2020). The component CSR is calculated by the average score of all indicators in that component (formula 3). The CSRD index of each bank will be the average score of 3 component CSR indicators (formula 4).

$$\text{The component CSR index}_{ij} = \frac{\sum_{i=1}^k \text{CSR}_{ij}}{n_{ij}} \quad (3)$$

$$\text{CSRD index}_{ij} = \frac{\sum_{i=1}^3 \text{The component CSR index}_{ij}}{3} \quad (4)$$

DSOB is a moderating variable that reflects the ownership structure. DSOB is a dummy variable; it takes on the value "1" if it is a state-controlled bank and "0" if it is a privately controlled bank.

The control variables are Bank size (SIZE, measured as the logarithm of Total Assets), Financial Leverage (CAP, calculated as the ratio between Equity and Total Assets), Loan-to-Deposits Ratio (LDR), Management Quality (CIR, measured as a ratio of Operating Expenses to Total Income) and Asset Quality (AQ, measured by the Cost of Credit Provision to Total Outstanding Loans). In addition, the model also contains the network-specific control variables - Banking Industry Market Concentration (HHI). The following formula calculates the HHI as follows:

$$\text{HHI} = \sum_{i=1}^n (\text{MS}_{it}^{\text{Asset}})^2 \quad (5)$$

$$\text{MS}_{it}^{\text{Asset}} = \frac{\text{Total assets of each bank}}{\text{Total assets of the banking sector}} \quad (6)$$

Finally, the two control variables that characterize the macroeconomy are Gross Domestic Income (GDP) and the Inflation Rate (INF).

3.3. Regression Method

This study uses the GMM estimation method proposed by Lars Peter Hansen in 1982. The use of GMM will allow

overcoming the model's defects such as multicollinearity, autocorrelation, heteroscedasticity, and endogenous variables, so the estimated results will not be biased, stable, and most efficient (Nguyen, 2021). The GMM method has two alternative estimators, differential GMM (D-GMM) and system GMM (S-GMM). In this study, we chose to use S-GMM because it has been improved based on the D-GMM version to give a better estimate. The two-step estimator was also selected because it is more efficient than the one-step version, especially for the S-GMM estimator (Huynh & Dang, 2021). Before discussing the estimation results, the study was conducted to test the regression's suitability using the S-GMM method. (i) First, the F test was performed to check the statistical significance of the estimated coefficients. If p -value $< 1\%$, the estimated coefficients are statistically significant (ii) Second, the AR test was performed to determine whether there is a correlation in the model residuals. If the AR (2) test has a p -value $> 10\%$, it means that the model has no quadratic autocorrelation. (iii) Third, the Sargan test was performed to check the excessive constraints and the reasonableness of the representative variables. If p -value $> 10\%$, the model is correct, the variables are reasonably representative. (iv) Fourth, the Hansen test is performed to check the validity of the instrumental variable. If the p -value is greater than 10% , it is reasonable to indicate the selected variables as instrumental variables (Ngo et al., 2020). Finally, when the number of instruments is less than or equal to the number of groups, it is concluded that the instrument variables are not weak.

4. Results and Discussion

4.1. Descriptive Statistics

Table 1 describes statistics based on a sample of 29 commercial banks; the study period is from 2012 to 2019. The maximum value of NIM is 0.09325, the minimum value is 0.00549, and the mean value is 0.02996. There is a significant difference in financial performance among banks in the sample. Similar results are seen when observing ROA and ROE. The average ROE of Vietnamese banks is 0.08537. The lowest ROE was only 0.00062 belonging to National Joint Stock Commercial Bank in 2012. In contrast, the highest was Asian Joint Stock Commercial Bank in 2018 (0.2773).

The average CSRE of commercial banks is 6.04542 (equivalent to 2,472 billion VND). The lowest CSRE was only 5.08658 (122 billion VND), belonging to Baovietbank in 2012. Meanwhile, the bank with the largest CSRE was Agribank in 2018, up to 16,405 billion VND. Agribank is also the bank with the highest staff cost as they have the highest number of employees in the Vietnamese commercial banking system (36,388 as of December 31, 2018). The average CSRD of Vietnamese commercial banks is 53%. This ratio is only average, similar to the research results of Ho (2018) with the sample of listed companies in 2012–2016.

The commercial bank with the most significant total assets is Joint Stock Commercial Bank for Investment and

Table 1: Statistics of Variables used in Research Model

Variables	Obs	Mean	Std. Dev.	Min	Max
NIM	232	0.02996	0.01284	0.00549	0.09325
ROA	232	0.00713	0.00587	0.00009	0.02902
ROE	232	0.08537	0.06899	0.00062	0.27731
CSRE	232	6.04542	0.55755	5.08658	7.21497
CSRD	232	0.53051	0.20442	0	0.96667
SIZE	232	5.07789	0.50397	4.12339	6.17317
CAP	232	0.08907	0.03889	0.02931	0.23841
CIR	232	0.55579	0.12922	0.28744	0.92793
LDR	232	0.78776	0.11497	0.42695	1.12531
AQ	232	0.00979	0.00779	0.00650	0.04936
HHI	232	0.05448	0.00432	0.04821	0.05974
GDP	232	0.06328	0.00691	0.05250	0.07200
INF	232	0.03831	0.01923	0.00630	0.06810

Development of Vietnam in 2019; the lowest is Baovietbank in 2012. The loan-to-deposit ratio of Vietnamese commercial banks is about 80%, of which the lowest ratio is 43% and the highest ratio is 112%. The average ratio of equity to total assets of Vietnamese banks is about 9%. At the same time, there is a massive difference in the maximum value (29.3%) and the minimum value (3.89%). Management quality of commercial banks is shown by the ratio of operating expenses to total income. The lower this ratio, the better the quality of management. The average CIR of Vietnamese banks is 55.6%. The lowest CIR is 28.7%, while the highest is 129.2%. Regarding market concentration, the average HHI index of Vietnamese commercial banks is 0.05, indicating a high level of competition in the banking industry. Vietnam's gross domestic product growth rate is relatively high, averaging 6.3% in 2012–2019. However, accompanied by a high GDP growth rate is a high inflation rate, averaging 3.8%.

4.2. Regression Analysis

Table 2 presents the regression results of the impact of CSRE and CSRD on NIM, ROA, and ROE of Vietnamese commercial banks. The results of the F test show all models have a p -value $< 1\%$, concluding that the estimated coefficients are statistically significant. The AR (2) test has a p -value $> 10\%$, which means that the model has no second-order autocorrelation. The Sargan test results show that the models are correct, and the variables are reasonably representative. The p -value of Hansen's test of all models is greater than 10%, indicating that the selected variables as instrumental variables are reasonable. Finally, in all models, the number of instruments is less than or equal to the number of groups, thus concluding that the instrumental variables are not weak.

The estimated results in columns 1, 3, and 5 of Table 2 show that CSRE has a positive impact on commercial banks' NIM, ROA, and ROE at statistical significance levels of 5% and 1%, respectively. Meanwhile, the regression results in columns 2 and 6 indicate a statistically significant relationship between CSRD and NIM, ROE. Previous studies have also demonstrated a positive impact of CSRE (Adewale & Rahmon, 2014; Bani-Khaled et al., 2021; Daniel, 2014; Iqbal et al., 2014; Moraa, 2016), CSRD (Bidhari et al., 2013; Mallin et al., 2014) to the financial performance of banks.

The above evidence demonstrates the positive impact of CSR on the financial performance of Vietnamese banks. Hypothesis H1 and H2 are accepted. This finding supports the Stakeholder theory and the Legitimacy theory. From the point of view of Stakeholder theory, a company can only survive if it can satisfy the needs of various stakeholders who may significantly affect the company's bottom line.

Stakeholders can contribute to a company's ability to create wealth to sustain growth. Therefore, companies should pay attention to their interests, considering their views (Ho, 2018). Stakeholder theory also emphasizes an organization's disclosure responsibility beyond a simple economic or financial activity. Similarly, the Legitimacy theory is most widely used in research to explain why businesses need to disclose social and environmental information (Ho, 2018; Islam et al., 2013). Through these actions, businesses gain legitimacy in their operations. Therefore, they are accepted by society and the community and ensure the conditions to continue operating and achieving profit goals (Ho, 2018). Thus, implementing and disclosing CSR information will help improve the bank's financial performance.

Table 3 presents the results of estimating the moderating role of ownership structure on the relationship between CSR and the financial performance of Vietnamese commercial banks. The F , AR(2), Sargan, and Hansen tests show that the regression coefficients of the independent variables are statistically significant, efficient, and unbiased. In all models, the number of instruments is less than or equal to the number of groups, indicating that the instrument variables are not weak. In columns 1 and 3 in Table 3, the author did not find statistical significance of the variable $CSRE \times DSOB$; however, in column 5, the regression coefficient of the CSRE variable has a positive sign with a significance level of 1%, while the variable $CSRE \times DSOB$ has a positive regression with a statistical significance of 10%. Similarly, the author did not find statistical significance of the variable $CSRD \times DSOB$ in columns 4 and 6; however, in column 2, the regression coefficient of the CSRD variable has a positive sign with a significance level of 1%. In comparison, the $CSRD \times DSOB$ variable has a negative regression coefficient with a statistical significance of 5%.

This evidence shows that spending on CSR activities increases banks' return on equity, and banks with state control have a higher financial performance than private banks. In contrast, CSRD is a factor that increases a bank's financial performance, explicitly increasing its profit margin. However, state-controlled banks have lower levels of economic efficiency gains than privately-controlled banks. In other words, the positive relationship between CSRE and financial performance is more robust in state-controlled banks than in private banks. Meanwhile, the positive relationship between CSRD and the financial performance of state-controlled banks is weaker than that of private banks. Researching listed Chinese companies, Li et al. (2013) found a weaker association between CFP and CSRD in SOEs than in non-SOEs. Ali et al. (2019) also showed that non-SOEs have a stronger association between CSR implementation and CFP. Ali et al. (2019) argued that SOEs engage in CSR activities under the government's encouragement while

Table 2: Results of Estimating the Effect of CSRE and CSR on the Bank's Financial Performance

	NIM		ROA		ROE	
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
CSRE	0.0115**(-2.52)		0.0010***(-2.87)		0.0745***(-2.9)	
CSR		0.0050**(-2.63)		0.0027(-1.52)		0.0215*(-1.76)
SIZE	-0.0158***(-3.27)	-0.0062**(-2.71)	-0.0116***(-2.89)	-0.0015**(-2.06)	-0.0997***(-3.18)	-0.014(-1.67)
CAP	-0.0861***(-6.04)	-0.0527**(-2.10)	-0.0257***(-3.27)	-0.0091(-1.58)	-0.5120***(-4.19)	-0.4939***(-4.43)
CIR	-0.0134*(-1.76)	-0.0269***(-3.21)	-0.0190***(-8.18)	-0.0133***(-5.59)	-0.2232***(-5.00)	-0.1974***(-5.48)
LDR	0.0068(-1.68)	0.0173**(-2.48)	-0.0191***(-3.60)	-0.0084**(-2.26)	0.0516(-1.35)	0.0346(-0.74)
AQ	0.2642***(-3.17)	0.2993***(-3.03)	-0.1456***(-3.97)	-0.0443*(-1.75)	-0.6044(-1.68)	-1.0451(-1.60)
HHI	-0.1079*(-1.78)	0.1055(-1.39)	0.1379**(-2.27)	0.1528**(-2.64)	1.2352***(-2.93)	1.4195***(-4.00)
GDP	0.0509(-0.65)	0.0332(-0.36)	0.0897***(-3.23)	0.1061**(-2.70)	0.7363*(-1.86)	0.6775**(-2.37)
INF	-0.0494***(-3.44)	-0.0494**(-2.56)	0.0469***(-3.32)	0.0564***(-4.30)	0.3205***(-3.41)	0.3648***(-5.75)
L.NIM	0.5770***(-6.26)	0.8496***(-17.88)				
L.ROA			0.8982***(-15.24)	1.0018***(-13.69)		
L.ROE					0.5870***(-12.59)	0.7226***(-20.61)
_cons	0.0343***(-3.63)	0.0289*(-1.91)	0.0137***(-2.21)	0.0043(-0.82)	0.1026(-1.39)	0.0857(-1.18)
N	203	203	203	203	203	203
Instruments	29	29	25	25	29	29
Groups	29	29	29	29	29	29
F test	0.000	0.000	0.000	0.000	0.000	0.000
AR(2) test	0.440	0.985	0.865	0.819	0.154	0.146
Sargan test	0.451	0.745	0.624	0.266	0.105	0.107
Hansen test	0.463	0.27	0.858	0.686	0.326	0.585

Note: *t* statistics in parentheses; **p*-value < 0.1; ***p*-value < 0.05; ****p*-value < 0.01.

Table 3: Estimation Results of the Effect of CSRE, CSR on the Bank's Financial Performance When Considering the Moderating Effect of Ownership Structure

	NIM			ROA			ROE		
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6			
CSRE	0.0123**(2.66)		0.0126*** (7.36)		0.1576*** (6.38)				
CSR		0.0073*** (3.28)							
DSOB	0.0688(1.18)	0.0413*(2.04)	-0.0230(-0.40)	0.0002(0.02)	-2.0295**(-2.06)	-0.0274(-0.85)			
CSRE x DSOB	-0.0100(-1.19)		0.0025(0.31)		0.2882*(2.04)	-0.0926(-0.54)			
CSR x DSOB		-0.0593**(-2.64)		-0.0153(-0.92)					
SIZE	-0.0161**(-2.50)	0.0025(0.55)	-0.0087***(-3.96)	0.0082*** (4.67)	-0.1585***(-4.58)	-0.0456(-0.21)			
CAP	-0.0769**(-2.64)	-0.0148(-0.44)	-0.0016(-0.16)	0.0159(0.83)	-0.5133***(-4.91)	0.0827*** (3.77)			
CIR	-0.0229***(-3.19)	-0.0050(-0.45)	-0.0199***(-7.90)	-0.0328***(-5.62)	-0.1959***(-4.76)	-0.6568*(-1.92)			
LDR	-0.0070(-1.31)	-0.0039(-0.35)	-0.0132***(-2.86)	0.0142*(1.84)	-0.1380***(-2.44)	-0.3692***(-5.54)			
AQ	0.0444(0.42)	0.1787(1.10)	-0.1383***(-2.82)	-0.3169***(-3.67)	-0.0126(-0.02)	0.2127** (2.64)			
HHI	-0.0123(-0.17)	0.1048(1.18)	-0.0172(-0.32)	0.0544(0.56)	-0.5530(-1.17)	-2.6812**(-2.26)			
GDP	0.0723(0.85)	0.2444** (2.19)	0.0381(0.97)	-0.1146*(-1.79)	0.4251(0.69)	-0.2742(-0.28)			
INF	-0.0880***(-2.89)	-0.0611**(-2.65)	0.0224** (2.47)	-0.0077(-0.60)	0.2260*(1.80)	-1.5678**(-2.50)			
L.NIM	0.9309*** (24.89)	0.9949*** (10.17)				-0.0971(-0.77)			
L.ROA			0.5561*** (7.59)	0.3599*** (3.87)					
L.ROE									
_cons	0.0329*(1.77)	-0.0309(-1.09)	-0.0071(-0.96)	-0.0215***(-3.10)	0.5510*** (7.58)	0.2780*** (3.76)			
N	203	203	203	203	203	203			
Instruments	26	29	29	29	29	29			
Groups	29	29	29	29	29	29			
F test	0.000	0.000	0.000	0.000	0.000	0.000			
AR(2) test	0.619	0.810	0.944	0.604	0.182	0.161			
Sargan test	0.924	0.752	0.673	0.724	0.425	0.212			
Hansen test	0.646	0.547	0.900	0.706	0.748	0.698			

Note: *t* statistics in parentheses; **p*-value < 0.1; ***p*-value < 0.05; ****p*-value < 0.01.

private enterprises choose CSR strategies based on cost-benefit analysis rather than institutional pressure.

Thus, when spending on CSR activities increases, state-controlled banks will achieve higher financial efficiency. Expenditures on CSR are made up of three parts: staff spending, taxes, and community spending, in which spending on employees accounts for the highest proportion. The average annual income of employees in state-owned commercial banks is much higher than in private commercial banks. In addition, state-owned commercial banks also have many welfare and remuneration schemes for employees and their relatives. Employees perform better when they are treated well and the company has many good policies in place, which improves the financial performance of commercial banks (Tran et al., 2021). When CSR disclosure is enhanced, privately controlled commercial banks will enjoy more financial benefits than state-controlled commercial banks. CSR of private banks is regarded as voluntary by society, however, CSR of state commercial banks is usually guided by government policy.

5. Conclusion

This study looks at how CSR impacts the financial performance of different commercial banks while looking at the regulatory role of ownership structures. Using a sample of 29 Vietnamese commercial banks between 2012 and 2019 and a two-step GMM system estimating tool in the dynamic panel model, the author shows the relationship between CSR and banking's financial performance. NIM, ROA, and ROE are selected to represent financial performance. Content analysis and financial data are used to measure CSR. The list of banks under state control and not under state control represents the adjustment of ownership structures. The results of testing the suitability of GMM regression estimates show that the regression coefficients of independent variables are statistically significant, influential, and non-deviating. The estimated results indicate the positive impact of both CSRE and CSRD on the bank's financial performance. Therefore, we conclude that CSR spending and disclosure will help Vietnam's central banks improve their economic efficiency. From the regression factor of the interaction variables, the author found that the positive relationship between spending on CSR activities and financial performance in state-controlled commercial banks was more significant than that of private commercial banks. In contrast, the link between CSR disclosure and financial performance will be weaker in state-controlled banks.

As with any empirical study, this study suffers from certain limitations. First, there are many different variables to represent the bank's financial performance. It can be a variable that represents accounting profit or

market return. Therefore, future studies can use both market return and accounting profit to describe the financial performance of Vietnamese commercial banks. Another way is to use technical efficiencies to measure the financial performance of banks. In addition to the moderator variable included in the model, many other factors are likely to affect the CSR-CFP relationship, such as bank size or legal regulation, etc. Therefore, future research can explore these factors.

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