RESEARCH ON THE RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY INFORMATION DISCLOSURE AND CORPORATE FINANCIAL PERFORMANCE: AN EMPIRICAL EVIDENCE IN VIETNAM

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ABSTRACT. *After opening up the economy (DOI MOI-1986), Vietnam's economy has had many positive changes, turning Vietnam into one of Southeast Asia's most dynamic economic regions. However, economic growth entails environmental and social consequences. With the goal of "sustainable development of the economy", Vietnam has implemented many policies to limit the negative impact of economic growth on the environment. One of the solutions is to require listed companies to disclose corporate social responsibility (CSR) information. This study aims to evaluate CSR information disclosure in Vietnam and consider its impact on the corporate financial performance (CFP). Through the evaluation of the annual report, the sustainable development reports 1,230 firm-year observations in the period 2014 to 2019. The research shows that the higher the level of CSR information disclosure, the higher the financial performance; in addition, the disclosure of CSR information has a more substantial impact on CFP from a market perspective than from a bookkeeping perspective.*
Keywords: Corporate social responsibility, Information disclosure, Corporate financial performance, Listed companies

1. **Introduction.** In Vietnam, corporate social responsibility (CSR) is first known through multinational corporations and foreign-invested enterprises. These companies organize a variety of cultural, environmental, and humanitarian activities. Through these activities, more and more individuals and organizations know the company, thereby enhancing the companies' reputation. When participating in the world and regional economic organizations, many businesses in Vietnam have voluntarily included their businesses' social activities in their annual and sustainable development reports. Some large enterprises have proactively disclosed CSR information before mandatory regulations, for example, Bao Viet Group, Hau Giang Pharmaceutical Company, FPT, and Vietnam Dairy Products Joint Stock Company. Circular 155/2015/TT-BTC is an essential legal document requiring listed companies to disclose information on the stock market. However, enterprises' quantity and quality of information disclosure are not uniform, even

though many enterprises publish information for free formally. There have been a few studies on the relationship between corporate social responsibility and corporate financial performance (CFP) in Vietnam, but these studies often go into the assessment of a few specific industries or businesses. Currently, there is no research to evaluate all the companies listed on the stock exchange of Vietnam. Besides, the measurement of the financial performance of enterprises is often only assessed from the accounting perspective, but not the perspective of the financial performance of the market. This study aims to evaluate the level of CSR information disclosure and its impact on the CFP of all companies listed on the Vietnamese stock market period 2014-2019. In order to comprehensively evaluate financial performance, this paper will determine CFP from both the bookkeeping perspective and the market perspective. This research will contribute significantly to the current literature in terms of CSR practices in developing countries like Vietnam. To achieve the research purpose, the remainder of this paper is organized as follows. Section 2 deals with research related to the relationship between CSR disclosure and CFP. Section 3 presents the research methodology, including hypothesis building and research model. Section 4 discusses the empirical results. Finally, Section 5 offers conclusions with observations and remarks.

2. **Literature Reviews.** *Corporate Social Responsibility*: CSR is the commitment of enterprises to contribute to sustainable economic development through compliance with standards on environmental protection, gender equality, occupational safety, fair pay, staff training and development, community development, product quality assurance, etc. in a way that is beneficial to businesses as well as society in general. CSR reporting is considered a practical communication approach for mandatory or voluntary disclosure of business conduct and corporate social responsibility. It is also a form of corporate identification, measurement, and reporting on environmental, labour, human rights, and related business social behaviours. Due to the specific provisions of Vietnamese law in particular, and the fact that the content in the statutory reports is published attached to the financial statements of Vietnamese enterprises in general, the CSR information is published through the Social Responsibility Reports, Sustainable Development Report, and Annual Report. *Corporate Finance Performance*: CFP is a widely used concept but, up to now, the concept of CFP is very diverse and not uniform among scholars. Simply, CFP is economic efficiency within an enterprise. It reflects the relationship between the economic benefits that the business receives and the costs that the company must pay to get the economic benefits. There are many indicators to measure the financial performance of enterprises, but the most commonly used criteria in research can be divided into two main groups: the group of hands using accounting documents (ROA, ROE, ROS) and the group of indicators based on market value (P/B and Tobin's Q). Many factors are affecting the financial performance of an enterprise; there are internal factors of the enterprise such as capital size, characteristics of the board of directors, and CEO. There are also factors belonging to external factors such as the macroeconomic environment, legal environment, natural disasters, and enemy sabotage. Jin, through a study of 1,651 firm-year observations for the period of 2010 to 2019 from the Taiwan Economic Journal (TEJ) Database, has shown that both board size and CEO duality of firms negatively relate to firm performance [1]. In 2010, Kimbro and Melendy surveyed manufacturing companies listed on the Hong Kong Stock Exchange. It was found that enterprises that disclose environmental information voluntarily have higher ROA and ROE than other enterprises [2]. Tilakasiri studied the influence of CSR on financial performance in enterprises in Sri Lanka through quantitative and qualitative methods; the results show that the impact of CSR on financial performance is increasing, and the relationship is positive [3]. Dewi and Monalisa, with a sample of 26 mining companies listed on the Indonesian stock market, based on the survey results of the company's 2010-2012 annual report and performed

OLS regression model analysis, gave similar results, that CSR information has a positive effect on ROA [4]. Lopez et al. studied 110 listed companies in Europe in 2 groups: one group measures the Dow Jones Sustainability Index (DJSI), and the other group measures the Dow Jones Global Index (DJGI) over six years (1998-2004); the results showed a decreasing negative relationship over time between CSR and CFP [5]. Kao et al. showed variations in market response to CSR engagement by firm ownership type; that is, the market responds positively to the CSR of non-market-oriented SOEs but is neutral to the CSR of SOEs with significant agency costs [6]. Hu et al. adopted WEKA to execute rough set theory and decision tree of Chinese listed enterprises as well as the CSR and non-CSR variables; the result indicated that CSR indeed has a great effect on financial performance [7].

Recently, Cuong and Lan showed a positive relationship between employees and returns on average assets; however, this study only studies a total of 27 listed companies in the period of 2015-2019 [8]. Similarly, Ngoc, when researching 31 Vietnamese commercial banks, pointed out a negative relationship between CSR and CFP [9]. Trang and Yekini studied the relationship between CSR and CFP of the top 20 listed companies in Hanoi and Ho Chi Minh City Stock Exchange (2010-2012); the results show that there is a weak relationship between CSR and CFP of these listed companies in Vietnam [10]. Yen pointed out the impact of CSR reporting on financial performance at Vietnamese commercial banks; with a research sample of 38 Vietnamese commercial banks in the period 2010-2014, the author uses a content analysis method for social responsibility on seven main topics: corporate governance, human rights, practice labor, environment, equity in operation, customers, and financial performance index on two indicators: ROA and ROE; research results show that there is a positive relationship between CSR and CFP; at the same time, the author also points out the limitation of the study – that the sample is small – so it lacks reliability [11]. There is no research showing the relationship of all companies listed on the Vietnam stock exchange. Thus, there is a need for a comprehensive study on CSR disclosure and its impact on CFP in Vietnam.

3. **Methodology.** According to stakeholder theory, companies can derive various benefits from CSR activities through their impact on income and expenses. CSR can generate additional revenue directly or indirectly. A customer's purchasing decision has a direct effect on a company's revenue. As awareness of social and environmental issues increases, customers need more CSR-related products and take more positive actions, such as increased purchases, company loyalty or word of mouth, which demonstrates the ability to adapt to negative information. However, previous empirical studies also show a negative or no relationship between CSR and financial efficiency, as described in the related studies section. Although the results of the studies are still inconsistent, the principal results show that social responsibility has a positive and statistically significant relationship with financial performance. Therefore, the authors put forward the following research hypothesis.

Hypothesis. Firms undertaking more corporate social responsibility information disclosure have a higher corporate financial performance.

Based on the above research hypothesis, the authors proceed to build a research model, specifically as follows:

$$\text{CFP}_{jt} = \beta_0 + \beta_1 * \text{CSR}_{jt} + \beta_2 * \text{LEV}_{jt} + \beta_3 * \text{SIZE}_{jt} + \beta_4 * \text{INDUS}_{jt} + \beta_5 * \text{AGE}_{jt} + \beta_6 * \text{SOE}_{jt} + \varepsilon_{jt}$$

where CFP_{jt} is the measure of the corporate financial performance of firm j in year t; CSR_{jt} is corporate social responsibility disclosure information level of firm j in year t; β is the parameter vector to be calculated, ε_{jt} is the standard error; LEV, SIZE, INDUS, AGE,

SOE are control variables to capture the effect of firm-specific factors such as leverage, firm size, industrial, age or ownership.

Level of disclosure of CSR information: This is an index to assess CSR information disclosure of enterprises listed on the Vietnamese stock market. Based on Circular 155/2015 TT-BTC and previous studies, the authors use a set of 25 evaluation criteria based on the disclosure of CSR information. After that, the content analysis and binary methods are applied to evaluating the CSR-related reports of enterprises. For each published content, 1 point is given, with 0 points for unpublished content. Thereby, the CSR is calculated by the unweighted average method. CSR index = Number of points achieved/25.

This paper adopts accounting and market-based measures to indicate CFP. In detail, the two indicators are ROA and TBQ. These two factors are chosen since they are the most common measures to test the relationship between social responsibility and CFP in previous studies that imply profitability, financial structure, and stock price. The *return on assets (ROA)* is a primary indicator used to measure a company's CFP or to assess the profitability of a company's assets. ROA shows the percentage of how profitable a company's assets are in generating revenue. ROA = Net profit/Total assets. *Tobin's (TBQ)*: James Tobin defines Tobin's Q as the ratio of the market value of a business to the cost of capital replacement. The following formula for measuring TBQ is used in this study: TBQ = (Short-term loans + long-term loans + market prices)/Book value of the total property. *Financial leverage (LEV)*: LEV shows the level of use of borrowed capital on the total capital of the enterprise. LEV = Total Debt/Total Assets. *Enterprise size (SIZE)*: A company's size is one of the most important characteristics affecting its performance. Firm size represents the size of the firm. It can be determined through capitalization size, the number of employees, revenue, etc. In this paper, SIZE = Ln[Total Assets]. *Industry (INDUS)*: Industry can significantly impact the relationship between CSR and financial efficiency. Because enterprises operating in different industries will report CSR activities to different degrees, the industry is coded as a dummy variable: in which 0 represents if the company belongs to the financial industry, while 1 represents the opposite. *AGE*: The number of years of the listing shows a company's experience in operating a business, including experience in information disclosure. *State ownership (SOE)*: SOEs are enterprises with a state ownership rate of 51% or more. These businesses often operate less efficiently than other forms of interaction. The reason is that this type of ownership usually does not work for profit but for social purposes. SOE is a dummy variable (SOE = 1 if the enterprise is state-owned, otherwise = 0).

4. Analysis and Results.

4.1. Descriptive statistics.
The descriptive statistics of variables are presented in Table 1. The minimum value of the ROA is -0.517 and the maximum value is 0.784; the minimum value of the TBQ is 0.002 and the maximum is 10.718; the CSR minimum value is 0.125 and the maximum value is 0.958; the minimum value of debt ratio is 0, the maximum is 0.965, INDUS and SOE are dummy variables so the minimum and the maximum values are 0 and 1, respectively.

4.2. Correlation analysis.
The Pearson correlation coefficient test is used to test the linear relationship between the independent and dependent variables in data analysis. If the independent variables are strongly correlated, the problem of multicollinearity must be taken into account when analyzing regression.

It can be seen from Table 2 that ROA has a positive correlation and has statistical significance at 1% with TBQ and CSR; simultaneously, there is a negative and significant correlation at 1% level with LEV and SIZE, not statistically significant with AGE and SOE. Similarly, CSR and TBQ also have a positive and statistically significant relationship

TABLE 1. Descriptive statistics

Variables	Observations	Average mean	Standard deviation	Min	Max
ROA	1,230	0.064	0.086	−0.517	0.784
TBQ	1,230	1.115	0.785	0.002	10.718
CSR	1,230	0.53	0.194	0.125	0.958
LEV	1,230	0.441	0.249	0	0.965
SIZE	1,230	3.946	1.971	−1.729	11.785
INDUS	1,230	0.934	0.246	0	1
AGE	1,230	8.391	3.53	1	19
SOE	1,230	0.157	0.364	0	1

TABLE 2. Correlation analysis

	1	2	3	4	5	6	7	8
ROA	1							
TBQ	0.428***	1						
CSR	0.189***	0.186***	1					
LEV	−0.373***	−0.084***	−0.039***	1				
SIZE	−0.079***	0.01	0.113***	0.343***	1			
INDUS	0.048*	0.063**	−0.019	0.024	−0.158***	1		
AGE	−0.016	0.024	0.117***	0.054*	0.002	0.053**	1	
SOE	0.012	−0.04	0.151***	0.004	0.045	−0.039	0.052*	1

*, ** and *** respectively indicate significant at the significance level of 10%, 5% and 1%.

at 1%, and TBQ has a statistically significant negative relationship of 1% with LEV. The other relationships are explained similarly.

4.3. **Research results.** Our hypothesis is concerned with the impact of CSR on firm performance. Table 3 indicates that CSR is statistically significant in a positive relationship ($p < 0.01$) on the majority measures of financial performance (ROA and TBQ), supporting the hypothesis.

TABLE 3. OLS regression of CSR on CFP

Variables	ROA	TBQ
CSR	0.077***(0.011)	0.791***(0.115)
LEV	−0.132***(0.009)	−0.273***(0.094)
SIZE	0.001(0.001)	0.013(0.012)
INDUS	0.023***(0.009)	0.235***(0.09)
AGE	−0.0004(−0.0006)	0.002(0.55)
SOE	−0.002(0.006)	−0.144**(0.06)
Intercept	0.056***(0.012)	0.648***(0.125)
Observations	1,230	1,230
Adj R-square	0.1713	0.0481
P-valued	0.0000	0.0000

Table of results of OLS regression model, showing a linear relationship between variables with a significance level of 1%, 5%, and 10% expressed through ***, ** and *. The value of Std Err is shown in parentheses ( ). Adj R-square, a modified version of R-squared, adds precision and reliability by considering the impact of additional independent variables that tend to skew the results of R-squared measurements. P-valued is less than 0.05 (typically ≤ 0.05) is statistically significant.

The regression coefficients of CSR on ROA and TBQ are 0.077 and 0.791 respectively, showing that the impact of CSR disclosure on corporate financial performance from the market perspective is stronger than the financial performance from the accounting perspective. Thus, the market will be susceptible to the CSR information that firms publish. The Adj R-square values for this regression are 17.13% and 4.81% for the relationship between CSR-ROA and the relationship between CSR-TBQ, respectively. The values of Adj R-square show that the proportion of ROA and TBQ is explained in the regression models. The fixed-effects model (FEM) and random-effect model (REM) will be applied to CFP. The fitted models to predict CFP value are shown in Table 4.

TABLE 4. Fixed and random-effects models

Variables	FEM model		REM model	
	ROA	TBQ	ROA	TBQ
CSR	0.066**(0.027)	0.491***(0.157)	0.073***(0.012)	0.74***(0.108)
LEV	−0.091***(0.02)	0.901***(0.115)	−0.122***(0.01)	0.451***(0.086)
SIZE	−0.001(0.002)	−0.096***(0.0133)	0.001(0.001)	−0.052**(0.009)
INDUS	0.003(0.014)	−0.152*(0.085)	0.016(0.01)	−0.056(0.077)
AGE	−0.0008(0.002)	0.033**(0.015)	−0.0009(0.0007)	−0.01(0.006)
SOE	omitted	omitted	0.0009(0.007)	−0.139(0.091)
Intercept	0.079***(0.019)	0.697***(0.112)	0.067***(0.012)	0.895***(0.097)
Observations	1,230	1,230	1,230	1,230
F-test	2.25	8.11		
P-valued	0.0000	0.0000		
Hausman test		0.0000	0.0671	
LM test			0.0000	0.0000

Table of results of FEM-REM model, showing the linear relationship between variables with significance levels of 1%, 5%, and 10% expressed through ***, ** and *. The value of Std Err is shown in parentheses ( ). The table also includes Hausman and LM test results to select a suitable model. The results are shown in the column for which the regression model fits.

Then, we use the Hausman test to differentiate between the fixed-effect model and the random-effect model and use the Breusch and Pagan Lagrangian Multiplier test (also known as the LM test) to select the appropriate model between OLS and REM. The results show that between these two models, the FEM model is suitable when TBQ is the dependent variable, and the REM model is suitable when ROA is the dependent variable. Technical testing steps again support the research hypothesis. Research results show that the level of CSR disclosure has a positive and statistically significant effect on CFP. The CFP is determined by CSR; that is, for one unit increase in CSR, the ROA is expected to go up by 0.073 times; the TBQ is expected to go up by 0.491 times. This result is completely consistent with the OLS model.

5. **Conclusion.** The study analyzes the relationship between CSR and CFP by using a multivariate regression model on a sample of 1,230 firm-year observations that have disclosed CSR information on the Vietnamese stock market from 2014 to 2019. This study shows scientific evidence that CSR disclosure has a positive and statistically significant effect on the CFP of listed companies in Vietnam. Although using a larger study sample over five years, this result is similar to the study of Cuong and Lan (27 listed Vietnamese firms in the sample) [8] and Trang and Yekini (20 listed Vietnamese firms in the sample) [10]. However, CSR disclosure has a more substantial impact on CFP based on market value, while the effect of CSR on CFP in terms of accounting records is minimal. This result is utterly consistent with reality because stock prices have high sensitivity to business-related information. Currently, social responsibility is still a topic

that needs to be studied more deeply in Vietnam. By analyzing the positive impact of CSR disclosure on CFP, this study is intended to raise awareness of social responsibility among policymakers, business managers, and society as a whole. The balance between economic benefits and sustainable development needs to be seriously considered, especially for developing countries like Vietnam. The research has achieved significant results and contributed to the research system on financial performance, social responsibility and the relationship between them. However, future studies may develop further based on the limitations of this study. Firstly, this paper only uses 25 criteria to assess CSR, focusing on three aspects, which are environment, employees and local community. Studies in the future could expand the criteria to other aspects of social responsibility such as the responsibility to customers, products, suppliers, or government agencies. Secondly, the assessment of the CSR indicator is still limited to the binary method; future studies can evaluate the CSR index on a scale with many levels, from which it is possible to assess further the status of information disclosure and social responsibility news. Lastly, the research model only directly evaluates the CSR-CFP relationship; future studies may use indirect effects through appropriate mediating or moderating variables.

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