THE MODERATING ROLE OF FIRM SIZE AND FIRM AGE IN THE RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND FUTURE FIRM PERFORMANCE: EMPIRICAL EVIDENCE FROM VIETNAM

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Abstract. Empirical research shows conflicting results about the association between corporate social responsibility initiatives and firm performance. Our study aims to solve the unanswered question in environmental accounting concerning the degree of alignment between corporate environmental disclosures and financial firm performance by introducing two mediating variables (i.e., firm size and firm age) influencing the relationship between subsequent firm performance and corporate social responsibility disclosures. Understanding moderating variables (i.e., firm age, and firm size) can help researchers identify the context where corporate social responsibility disclosures negatively affect firm performance. By using the sample of all non-financial listed firms on the Vietnam Stock Exchange for the period 2014 to 2022, we find a negative relation between firms disclosing corporate social responsibility and their long-term performance (measured with adjusted industry-size return on asset as well as Tobin's Q for small-sized firms or young firms but large-sized firms or old firms do not. The findings of this paper are consistent with the supply and demand theory of the firm, as proposed by McWilliams and Siegel in 2001, which indicates that smaller-sized and younger firms engaging in corporate social responsibility do not enhance a company's financial performance.

Keywords. firm age, firm size, corporate social reporting, firm performance

1 INTRODUCTION

Corporate social responsibility (hereinafter CSR) has been an increasingly attractive topic in both academics and business. CSR is defined as "CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large". (Council for Sustainable Development). According to this definition, CSR activities are the information that managers of firms would disclose to create a good image to outside stakeholders about the firms.

There are strong debates among researchers and practitioners about the effect of investments in CSR activities on firms' financial performance (e.g., Saleh, Zulkifli, and Muhamad, 2011; Rehman et al., 2020). In the first stream of research, higher involvement in CSR activities is positively related to better firm performance (e.g., Peloza, 2006; Rahman and Yu, 2019). With this viewpoint, CSR could play a role in increasing a firm reputation and image among stakeholders heightening customers' loyalty and trust, thereby exerting a sustained influence on long-term performance (see Wood, 2010). On the opposite side, prior studies show that there is a negative association between CSR disclosures and firm performance (see Dragomir, 2010; Buallay et al., 2020). According to this stream of research, investment in CSR activities requires firms to sacrifice financial resources that could negatively influence firm performance (see Russo and Fouts, 1997).

Nevertheless, the theoretical perspectives examining the relationship between CSR and corporate performance are inconclusive. Drawing from neoclassical micro-economic theory and stakeholder theory, various studies predict positive, negative, and neutral effects (Freeman, 1984; Freedman, 1970; Waddock and Graves, 1997). Our study aims to solve an unanswered question in the field of environmental accounting pertaining to the degree of alignment between corporate environmental disclosures and financial

firm performance by introducing moderating variables that can help researchers gain a deeper understanding of how CSR initiatives impact firm value in different contexts.

In emerging market like Vietnam, micro and small listed firms play a vital role in the economy and occupy the largest proportion of listed companies. According to Decree 80/2021/ND-CP dated on October 2021, small enterprises are different from large enterprises in terms of industry of operation, the number of employees, annual revenues and total capitals. The different characteristics between small and large companies result that small businesses face more challenges than large businesses due to their limited size, unskilled workforce, outdated technology, lack of adequate funding, and resulting low productivity levels (Tuan et al., 2018). Consequently, compared to large firms, small firms might not implement CSR activities successfully because of constrained financial resources and lacked skilled labor. Moreover, firm age is another important factor that could affect the association between firm value and CSR disclosures. Indeed, Fredrickson (1986) indicates that young firms have less resources than older firms. Although firm size and firm age are important firm characteristics that could vary the effect of CSR activities on firm value, until now there have been no studies using these moderating variables in examining the association between firm value and CSR disclosures. To close this gap, our study will examine the relation between CSR disclosures and future firm performance moderating by firm size and firm age of Vietnamese listed firms.

Considering these moderating factors, it becomes possible to explain why some studies find a positive association between CSR and firm value while others report no significant relationship or even negative effects. Our research brings new insights into the association between long-term performance and CSR disclosures by incorporating mediating variables (such as firm size and firm age) to enhance our understanding of this relationship.

By using the sample of Vietnamese-listed firms as an emerging market setting during the period of 2014-2022, we find that younger and smaller firms engaging in CSR activities generally have a negative effect on financial firm performance. Accordingly, the results of this paper are consistent with the 'resource-based view of the firm' that different firms have unequal benefits from involving CSR initiatives. Younger and smaller firms with lower financial resources and management capabilities cause an ineffective CSR strategy.

In the next section, we will discuss prior literature and hypotheses development in section 2. It is followed by research design in section 3. Section 4 will present the results of this paper. In section 5, robustness testing is performed. The last section is the conclusion.

2 THEORETICAL BACKGROUNDS

According to the stakeholder theory, the objective of a firm is not only to meet the needs of shareholders but also other stakeholders. When satisfying the needs of different types of stakeholders (e.g., suppliers, customers, employees) through engaging in social responsibility activities, firms can improve their financial performance (see Freeman, 1984; Cornell and Shapiro, 1987; Donaldson and Preston, 1995). Based on this perspective, firms having corporate social responsibility can create intangible values for firms such as competitive advantages or reputation for firms. Consequently, CSR practices can positively influence subsequent firm performance (i.e., Cochran and Wood, 1984; Harrison et al., 2010).

Nevertheless, there is controversy about the positive relationship between CSR involvement and financial firm performance. Indeed, McWilliams and Siegel (2001) introduce the supply and demand model of CSR to examine the association between CSR activities and firm performance. In their research, McWilliams and Siegel propose that the level of CSR engagement by firms is influenced by both supply-side and demand-side factors. On the supply side, the authors argue that firm characteristics, such as size, profitability, and resource availability, impact their engagement in CSR activities. Large firms with greater financial resources and market power are more likely to engage in CSR initiatives. Additionally, firms with strong financial performance are better positioned to invest in CSR as they have more resources to allocate. The authors suggest that these supply-side factors determine a firm's capacity to engage in CSR. On the demand side, McWilliams and Siegel highlight the influence of external stakeholders, including customers, investors, and the broader society. Firms respond to the demands and pressures from these stakeholders by adopting CSR initiatives. Similarly, investor demand for sustainable and responsible practices can also affect a firm's engagement in CSR activities.

The supply-and-demand model of CSR proposed by McWilliams and Siegel emphasizes the interplay between firm-specific factors and external pressures, suggesting that both supply-side and demand-side factors shape a firm's engagement in CSR. In this paper, they have a conclusion that without considering factors on the supply side, the results of an association between CSR initiatives and firm performance can be misspecified. Our study extends McWilliams and Siegel's (2001) paper by investigating how firm size and firm age affect the relationship between CSR practices and subsequent financial firm performance.

3 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Based on stakeholder theories and legitimacy theories, the disclosure of CSR activities can help to meet different stakeholders' expectations (e.g., Crilly et al., 2012; Jackson et al., 2020). Previous studies show that corporate social responsibility (CSR) has been playing a vital role in stakeholders' investment decisions (e.g., Kassinis and Vafeas, 2006; Flammer, 2013). Deegan (2002) presents that according to the legitimacy theory; managers of firms voluntarily disclose sustainability information to build trust from stakeholders. Moreover, other studies show that firms disclose environmental reports to attempt to fulfil social expectations as a strategy of symbolic legitimation (see Buhr, 2002; Patten, 2002; Cho and Patten, 2007). In contrast, when firms fail to disclose CSR activities, the asymmetric information increases, which makes stakeholders not know whether managers of firms act in their best interest or not (see Crilly et al., 2012; Jackson et al., 2020).

From the above literature, managers of firms engaging in CSR activities not only commit legal obligations related to addressing specific environmental concerns but also satisfy the expectations of multiple stakeholders such as consumers, investors, and the community (Freeman, 1984; Mitchell et al., 1997). Nevertheless, there is a debate about the effectiveness of corporate sustainability disclosures. As mentioned in the supply and demand theory of firms by McWilliams and Siegel (2001), the efforts to fulfil the demand of multiple stakeholders are inconsistent with the profit maximization of firms, which results in mixed results regarding a relationship between CSR disclosures and firm performance. Respectively, the debate surrounding CSR and firm performance is complex and context dependent. It is important to note that the relationship between CSR and firm performance can be mis-specified if all the firm or industry characteristics are not controlled in empirical research (McWilliams and Siegel, 2001).

Based on theoretical research conducted by McWilliams and Siegel (2001) and Udayasankar (2008), the size of a firm could play a significant role in determining its engagement in CSR activities. This suggests that smaller and larger firms might exhibit varying levels of effectiveness when it comes to their CSR initiatives.

Previous studies document that smaller firms have different financial resources and capabilities from larger firms (Dean et al., 1998). Indeed, Lepoutre and Heene (2006) show that small firms that lack financial resource availability are barriers to implementing CSR activities. Consequently, managers of smaller firms perceive CSR initiatives as costs that lead to competitive disadvantage (see Simpson et al., 2004). Our arguments are consistent with the trade-off theory by Ullmann (1985); Waddock and Graves (1997). In which, firms involved in CSR initiatives have economic benefits while increasing the number of resources spent by firms that could reduce the profitability of firms. Consequently, we expect that small-sized firms will over-invest in CSR activities that could deteriorate long-term performance. Hence, the first hypothesis of this paper is formulated as follows:

Hypothesis 1: CSR of small-sized firms is negatively related to future firm performance.

According to the "resource-based view of the firm", not all firms can gain the same advantages from implementing CSR initiatives (e.g., Hart, 1995). Specifically, companies that are actively pursuing CSR activities are likely to be those that have more financial resources and better management capabilities (Hasan and Habib, 2017). Moreover, as presented in McWilliams and Siegel (2001) and Russo and Fouts (1997), the resource bases and capabilities of firms are different over their life cycle resulting in varying competitive advantages in pursuing CSR investments. Indeed, younger firms have less predictable cash flows and typically experience more rapid growth (Withisuphakorn and Jiraporn, 2016). Accordingly, investment in CSR activities causes younger firms to have less cash left over to increase their growth. Furthermore, younger firms generally have less expertise and experienced staff, hence, these firms find it difficult to receive benefits from exploiting CSR activities (Helfat and Peteraf, 2003). Based on these arguments, the second hypothesis is formulated as below:

Hypothesis 2: CSR of young firms is negatively related to future firm performance.

4 METHODOLOGY

4.1 Sample

To test our hypotheses, we select a sample of all non-financial firms listed on the Vietnam Stock Exchange between 2014 and 2022. We use the Widata database to collect financial information. As for CSR information, we manually collect it from annual reports or corporate social reports on each company web page. All continuous variables used to test hypotheses are winsorizing at a 1 percent level. We apply the Global Industry Classification Standard (GICS) to classify industries in this paper. Table 1 below illustrates sample selection distribution by year and industry.

Table 1. Sample selection

Panel A. Sample selections for all non-financial firm-years from 2014 to 2022 distributed by year

Year	*No. of obs.*	*%*
2014	378	8.65%
2015	410	9.38%
2016	428	9.79%
2017	489	11.18%
2018	446	10.20%
2019	467	10.68%
2020	656	15.00%
2021	428	9.79%
2022	670	15.32%
Total	4,372	100%

Panel B. Sample selection distribution by industry

GICS code	*Industry*	*Obs.*	*Percent (%)*
01	Real Estate	466	11%
02	Health Care	150	3%
03	Information Technology	35	1%
04	Industrial	1,276	29%
05	Utilities	291	7%
06	Communication Services	150	3%
07	Consumer Staples	476	11%
08	Consumer Discretionary	376	9%
09	Energy	141	3%
10	Materials	1,011	23%
Total		4,372	100%

4.2 Measurement

4.2.1 Corporate social responsibility disclosures

Based on Circular 155/2015/TT-BTC effective on 1/1/2016 and Circular 96/2020/TT-BTC effective on 1/1/2021 we use 16 categories shown in the below table 2, in which, there are 9 environmental items, 5 employee items, one society item, and one green capital market activities item. To measure CSR disclosures, we manually analyse these activities shown in a separate section of annual reports (i.e., section 6 – "Report the enterprise's impact on the environment and society"). Following previous studies (e.g.,

Branco and Rodrigues, 2008), we employ a scoring methodology. The CSR disclosure indexes for firm i in year j are formulated as below:

$$CSRI_{i,t} = \frac{\sum_1^k CSR_{i,t}}{N}$$

Where
N: maximum number of items that a firm discloses CSR
CSR: total disclosure score of company i in year t
Table 2 below shows that there is maximum number of items of 16 (e.g., items 1 to 16) that includes 7 items of management of raw materials, 2 items of compliance with the law on environmental protection, 6 items of policies related to employees and 1 item of a report on responsibility for the local community. Each item of CSR disclosed is coded as 1. On the other hand, firms do not disclose any item among the 16 items encrypted as 0.

Table 2. Corporate social responsibility information disclosure in each item

Items	Descriptions	Aspects
EN1	The total amount of raw materials used for making and packaging the organization's products and services in a year	Management of raw materials
EN2	The proportion of materials that are reused or repurposed in the manufacturing of the company's goods and services	
EN3	Energy usage - both directly and indirectly	
EN4	Energy conservation achieved through initiatives promoting the efficient utilization of energy resources	
EN5	The report covers initiatives aimed at conserving energy, including the provision of products and services that facilitate energy-saving or renewable energy usage	
EN6	Water provision and quantity of water consumed	
EN7	The proportion and overall quantity of water that undergoes recycling and reuse	
EN8	A number of times the company has been fined for failing to comply with environmental laws and regulations.	Compliance with the law on environmental protection
EN9	The total amount to be fined for failing to comply with laws and regulations on the environment.	
EN10	Employee count and the average wages received by workers	Policies related to employees
EN11	Average salary earned by employees	
EN12	Labor policies aimed at safeguarding the health, safety, and well-being of workers	
EN13	Average annual training hours for both staff and classified staff members	
EN14	Programs focused on skills development and ongoing learning to enhance workers' employment and career growth	
EN15	Investments made in the community and other activities related to community development, such as providing financial aid to community services	
EN16	Activities in the green capital market guided by the SSC	Report on responsibility for local community

4.2.2 Firm size and firm age

Firm size (SIZE): Following previous studies, we measure firm size as the natural logarithm of market capitalization (see Atiase, 1985; Diamond and Verrecchia, 1991; Chae, 2005). Firm age (AGE): We measure firm age as the number of years firms have since firms first appeared in the database (see Flanagan and O'Shaughnessy, 2005; Leary and Roberts, 2010). Following Baik, Kang, & Kim (2010), we classify young firms or small-sized firms by using the sample median of firm age or firm size. Accordingly, firms

have size or age below/above median value classified as small-sized, young firms or large-sized, old firms, respectively.

4.2.3 Firm performance

Firm value is measured by using Tobin's Q. Indeed, Tobin's Q is considered the reliable and widely accepted measure of firm performance (Dragomir, 2010; Saleh et al., 2011). Following Chung & Pruitt (1994), Tobin's Q is equal as below:

$$\text{Tobin's Q} = \frac{\text{year end market value of common stock} - \text{year end book value of debt}}{\text{year end book value of total assets}}$$

Another measure of firm performance is adjusted return on assets (ADJ_ROA) that is calculated as net income before extraordinary items divided by total asset (Barber and Lyon, 1996). Moreover, Barber & Lyon (1996) indicate that firms can experience mean reversion of ROA. Accordingly, we adopt industry and size-adjusted subsequent ROA to measure future operating firm performance. In detail, adjusted ROA is the difference between ROA and median ROA for all firms in the same year, industry, and similar size, with total assets ranging between 90 percent and 110 percent (e.g., Barber and Lyon, 1996; Mikkelson, Partch, and Shah, 1997; Loughran and Ritter, 1997).

4.3 Empirical models

The hypothesis of this study predicts that small-sized firms or young firms disclosing CSR information will experience long-run under-performance. To examine the association between future firm performance and CSR with the moderating variable of small-sized firms or young firms, the below regression model is utilized.

$$\text{TOBINQ}_{i,t+i}/\text{ADJ\_ROA}_{i,t+i} = \beta_0 + \beta_1 \text{CSR}_{i,t} + \beta_2 \text{SIZE}_{i,t} + \beta_3 \text{CSR}_{i,t} \text{ x SIZE}_{i,t} + \beta_4 \Delta\text{SALES}_{i,t} + \beta_5 \text{Z\_SCORE}_{i,t} + \beta_6 \text{M/B}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \sum_j \beta_j \text{INDUSTRY}_{\text{DUMMY}_{it}} + \sum_k \beta_k \text{YEAR}_{\text{DUMMY}_{it}} + \varepsilon_{i,t} \quad (1)$$

$$\text{TOBINQ}_{i,t+i}/\text{ADJ\_ROA}_{i,t+i} = \beta_0 + \beta_1 \text{CSR}_{i,t} + \beta_2 \text{SIZE}_{i,t} + \beta_3 \text{CSR}_{i,t} \text{ x AGE}_{i,t} + \beta_4 \Delta\text{SALES}_{i,t} + \beta_5 \text{Z\_SCORE}_{i,t} + \beta_6 \text{M/B}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \sum_j \beta_j \text{INDUSTRY}_{\text{DUMMY}_{it}} + \sum_k \beta_k \text{YEAR}_{\text{DUMMY}_{it}} + \varepsilon_{i,t} \quad (2)$$

Where:

i	= 1, 2, 3
CSR	= a dummy variable equal to 1 if an observation has CSR disclosures, 0 otherwise
TOBINQ	$= \frac{\text{Market capitalization}_{i,t+i} + \text{Book value of liabilities}_{i,t+i}}{\text{Total asset}_{t+i}}$
ADJ_ROA	= Industry and size-adjusted ROA equals the firm specific ROA minus industry-size year median ROA
SIZE	= the natural logarithm of market capitalization
AGE	= number of years firms appear in database
ΔSALES	$= \frac{\text{SALES}_{i,t} - \text{SALES}_{i,t-1}}{\text{SALES}_{i,t-1}}$
Z_SCORE	$= 3.3 \text{ x } \frac{\text{Net income}_{i,t}}{\text{Total asset}_{i,t-1}} + 1.0 \text{ x } \frac{\text{SALES}_{i,t}}{\text{Total asset}_{i,t-1}} + 1.4 \text{ x } \frac{\text{Retained Earnings}_{i,t}}{\text{Total asset}_{i,t-1}} + 1.2 \text{ x } \frac{\text{Working capital}_{i,t}}{\text{Total asset}_{i,t-1}}$
M/B	= market value of equity divided by book value of equity
INDUSTRY, YEAR	= a dummy variable equal to 1 if firm-year belongs to a particular industry or a particular year, respectively, 0 otherwise

We split the sample of firm-years based on the median of firm size and firm age (Hyytinen and Pajarinen, 2008). Small firms have logarithm of market capitalization below median firms and young firms have age below median. The regression model (1), (2) are estimated for each sub-sample. β_3 is the coefficient estimate of interest that represents the interaction between firm characteristics (i.e., firm size, firm age) and

CSR disclosures. The negative coefficient of β_3 when we use the sub-sample of small-size firms or young firm age (i.e., below the median of firm size, below median of firm age).

The dependent variable in the three above models is subsequent firm performance (TOBINQ). Indeed, in comparison with profitability measure that is short-term measure, Tobin's q is long term measures since its measure is estimated by market value of firms (see Morck, Shleifer, and Vishny, 1988; Servaes and Tamayo, 2013). Following previous research, we estimate the future performance of a company by utilizing TOBINQ values for one year ahead, two years ahead, and three years ahead (Teoh, Welch, and Wong, 1998; Gunny, 2010; Jiang, Habib, and Wang, 2018). Another way to evaluate the performance of a company is by considering the adjusted return on assets (ADJ_ROA) for the upcoming one, two, and three years.

Based on previous studies, we control variables that have a relation with firm performance. Indeed, Loughran & Ritter (1997); Rangan (1998) show that firms having high earnings growth or sales growth will have poor future performance. Accordingly, we control sales growth (ΔSALES) in the regression models. Moreover, in accordance with prior research, we incorporate firm size (SIZE) as an extra control variable. (see Ullmann, 1985; Surroca, Tribó, and Waddock, 2010). Previous research also shows that there is negative association between firm's growth opportunities and future firm performance (e.g., Baker, 1993; Gul, 1999). Hence, growth opportunities (M/B) is added to the models as a control variable (see Fama and French, 1992). Additionally, prior studies show that firms having debt covenants violations decline their future performance (see Sweeney, 1994; Wang and Zheng, 2020). Thus, following E. I. Altman (1968) and E. Altman (2000), we use Z_SCORE as a control variable to control for firms' financial health. We incorporate industry and year fixed effects as categorical variables represented by dummy variables in the empirical mode. In which, we utilize the Global Industry Classifications Standard (GICS) to categorize industries that are well-liked among research professionals (see Bhojraj, Lee, and Oler, 2003). To minimize the effect of heteroscedasticity and serial correlation problems, robust standard errors clustered at firm level are used.

5 EMPIRICAL RESULTS

5.1 Descriptive statistics

Table 3 provides descriptive statistics using full sample for the period of 2014-2022. Panel A of table 3 shows the statistics for the variables included in the hypotheses. The average Tobin's Q ratio is 1.155 indicating that on average market values are greater than book values of the sample. To corporate social responsibility disclosures (CSR), the mean and median value is 0.236 and 0.190, respectively. Moreover, firm size (SIZE) has the mean and median value of 26.902 and 26.746, respectively. The average firm age is 9.269 years (median of 9 years).

Panel B of table 3 presents the correlation matrix for used variables in our empirical models. Future firm performance (TOBIN_Q_{t+1}) has significantly positive correlation with Z_SCORE_t (coefficient of 0.150, significant at1 percent level). Similarly, firm size has a significant and positive correlation with future firm performance (coefficient of 0.301, significant at 1 percent level). Panel C of table 3 illustrates the percentage of the total sample of corporate social responsibility information disclosure in each item.

Table 3. Descriptive Statistics

Panel A. Summary statistics

	Obs.	Mean	Std. Dev.	25 percent	Median	75 percent
TOBIN_Q_t	4,372	1.155	0.847	0.836	0.991	1.262
TOBIN_Q_{t+1}	3,561	1.124	0.529	0.829	0.985	1.267
CSR_t	4,372	0.236	0.256	0.000	0.190	0.440
SALES_GROWTH_t	4,372	0.366	2.019	-0.069	0.105	0.484
Z_SCORE_t	3,748	1.895	1.630	0.952	1.587	2.458
M/B_t	4,372	1.797	30.078	0.620	0.975	1.535
SIZE_t	4,372	26.902	1.721	25.755	26.746	27.947
AGE_t	4,372	9.269	3.524	7.000	9.000	12.000

Panel B. Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) TOBIN_Q_t	1							
(2) TOBIN_Q_{t+1}	0.412***	1						
(3) CSR	-0.002	-0.001	1					
(4) SALES_GROWTH	0.001	-0.011	-0.005	1				
(5) Z_SCORE	0.133***	0.150***	-0.021	0.100***	1			
(6) M/B	0.047***	0.015	0.029	0.003	-0.011	1		
(7) SIZE	0.337***	0.301***	0.017	0.011	-0.051***	0.057***	1	
(8) AGE	0.005	0.021	0.151***	-0.057***	-0.039	0.021	0.092***	1

*Notes: ***, **, * significant at 1 percent, 5 percent, and 10 percent level, respectively*

Panel C. The percentage of the total sample of corporate social responsibility information disclosure in each item

Items	Obs.	Percentage (%)
EN1	793	3.97%
EN2	270	1.35%
EN3	1,410	7.07%
EN4	361	1.81%
EN5	390	1.95%
EN6	1,208	6.05%
EN7	311	1.56%
EN8	1,385	6.94%
EN9	1,110	5.56%
EN10	2,998	15.02%
EN11	2,478	12.42%
EN12	2,936	14.71%
EN13	752	3.77%
EN14	972	4.87%
EN15	2,177	10.91%
EN16	404	2.02%
Total	19,955	100%

5.2 Main results

Table 4 below illustrates results for testing hypothesis 1 about the association between subsequent firm performance and CSR disclosures moderating by firm size. Subsequent firm performance is measured by using Tobin's Q (TOBIN_Q) and industry-size-adjusted ROA (ADJ_ROA) in year t+1, t+2 and t+3. To test the first hypothesis, we also split the sample into small-sized firms and large-sized firms (below or above the median). The results of columns (2) and (4) are based on the sample of small-sized firms using one-year ahead ADJ_ROA and TOBIN_Q, respectively. The coefficients on the interaction term (CSR x SIZE) on one-year ahead ADJ_ROA and TOBIN_Q in the column (2), (4) of -0.148 and -0.011, significant at 1 percent level, 5 percent level, respectively. The results are robust once two-year $\text{TOBIN\_Q}_{t+2}, \text{ADJ\_ROA}_{t+2}$ and three-year ahead $\text{TOBIN\_Q}_{t+3}, \text{ADJ\_ROA}_{t+3}$ are used as the subsequent firm performance measures. However, the coefficient estimates on CSR for large-sized firms in column (1) and (3) are no longer statistically significant. Collectively, the results in table 4 support our first hypothesis indicating that small-sized firms disclosing CSR activities experience long-term under-performance.

Table 4. Future firm performance and corporate social responsibility disclosures moderating by firm size

ADJ_ROA	TOBIN_Q

	LARGE-SIZE FIRMS	SMALL-SIZE FIRMS	LARGE-SIZE FIRMS	SMALL-SIZE FIRMS
Intercept	0.000	-0.141***	3.251**	-0.055
	[0.013]	[-3.476]	[2.037]	[-0.048]
CSR	-0.001	-0.014***	0.032	-0.148**
	[-0.271]	[-3.803]	[0.342]	[-2.120]
ADJ_ROA	0.231***	0.082***	0.337	-0.033
	[3.220]	[4.702]	[0.662]	[-0.104]
SALES_GROWTH	-0.001	-0.000**	-0.006	0.005***
	[-0.768]	[-2.268]	[-1.578]	[2.933]
Z_SCORE	-0.001	0.003***	0.024**	0.004
	[-0.926]	[3.298]	[2.196]	[0.459]
M/B	0.000***	0.005*	0.082	-0.077
	[2.909]	[2.003]	[1.423]	[-1.558]
SIZE	-0.000	0.005***	-0.069	0.039
	[-0.263]	[3.274]	[-1.209]	[0.881]
Observations	1862	1884	1602	1480
Year/Industry included	YES	YES	YES	YES
Adjusted R^2	0.0853	0.0400	0.127	0.0773

The reported t-statistics (displayed below the coefficients) are derived from White's (1980) standard errors, which are adjusted for clustering at the firm level. ***, **, * significant at 1 percent, 5 percent, and 10 percent level, respectively.

Table 5 below shows the result for testing the second hypothesis about the relationship between future firm performance and CSR moderating by firm age. Future firm performance is measured by using two proxies such as Tobin's Q (TOBIN_Q) and industry-size-adjusted ROA (ADJ_ROA) in year t+1, t+2 and t+3. To examine the second hypothesis, we split the sample into young firms and old firms relied on the median sample. The interest coefficient β_3 represents the interaction between CSR firm and firm age (*CSR x AGE)*. The result shown in table 5 presents that there are significantly positive coefficients on one-year ahead ADJ_ROA and TOBIN_Q only for young firms, column (2) and (4) (with coefficients = -0.078, -0.006, respectively, and significant at 1 percent, 5 percent level, respectively). The results are robust once two-year $\text{TOBIN\_Q}_{t+2}, \text{ADJ\_ROA}_{t+2}$ and three-year ahead $\text{TOBIN\_Q}_{t+3}, \text{ADJ\_ROA}_{t+3}$ are used as the subsequent firm performance measures. However, the coefficient estimates on CSR for old firms in column (1) and (3) are no longer statistically significant. Collectively, the results in table 5 support our second hypothesis indicating that young firms disclosing CSR activities experience deterioration in long-run performance.

Table 5. Future firm performance and corporate social responsibility disclosures moderating by firm age

	ADJ_ROA		TOBIN_Q	
	OLD FIRMS	YOUNG FIRMS	OLD FIRMS	YOUNG FIRMS
Intercept	-0.054**	-0.068**	3.456*	-0.441**
	[-2.611]	[-2.385]	[1.685]	[-1.972]
CSR	-0.004	-0.008***	-0.093	-0.078**
	[-0.553]	[-3.194]	[-0.949]	[-1.979]
ADJ_ROA	0.144**	0.176***	0.163	2.229***
	[2.768]	[4.755]	[0.464]	[6.824]
SALES_GROWTH	-0.002***	-0.000	-0.012	-0.002
	[-2.915]	[-1.540]	[-1.205]	[-0.745]
Z_SCORE	-0.000	0.002*	0.015	-0.012
	[-0.030]	[1.758]	[1.285]	[-0.218]

M/B	-0.000	0.000*	0.088	0.018
	[-0.366]	[1.949]	[1.078]	[1.546]
SIZE	0.002**	0.002**	-0.081	0.058***
	[2.650]	[2.217]	[-1.073]	[6.712]
Observations	1376	2370	1157	1925
Year/Industry included	YES	YES	YES	YES
Adjusted R^2	0.0369	0.0708	0.0432	0.186

The reported t-statistics (displayed below the coefficients) are derived from White's (1980) standard errors, which are adjusted for clustering at the firm level. ***, **, * significant at 1 percent, 5 percent, and 10 percent level, respectively.

6 ROBUSTNESS TESTING

In the robustness testing, to classify firm age and firm size as younger firms or larger firms, we split sample from the youngest (oldest) decile of firm age or the smallest (largest) decile of firm size. Size rankings are made by year. The findings are of a like the primary results.

7 CONCLUSION

Our study contributes to providing empirical evidence about the mixed results for the relation between CSR disclosures and firm values. Our results extend previous literature about CSR initiatives and firm performance by introducing the mediating variables of firm size and firm age affecting the association between CSR disclosure and future firm performance. Specifically, the study suggests that the relation between CSR disclosures and future company performance is influenced by the age and size of the firm. Indeed, with younger firms or smaller-sized firms, there is a negative association between CSR disclosures and future firm performance.

Our paper extends the supply and demand theory introduced by McWilliams & Siegel (2001) by controlling firm-level characteristics (i.e., firm age and firm size) when investigating whether CSR activities negatively or positively impact financial firm performance. The results are consistent with the resourced-based perspective by Hart (1995) and Russo & Fouts (1997) that firms having limited financial resources, employee competency could erode profitability and competitiveness when engaging CSR activities.

The findings of this paper indicate that smaller-sized and younger firms experience long-run under-performance when develop CSR activities. Thus, our research indicates that when considering new CSR projects, it is important for managers and executives to assess how the size and age of the company may affect the availability of resources, efficiency of processes, visibility, reputation, and ultimately the effectiveness of these projects. Therefore, managers of small-sized and young companies should take steps to address any limitations in implementing CSR initiatives. This will help maximize the positive impact of these projects on the overall value of the firm.

Our study still contains limitations in which we only examine the moderating factors such as firm age and firm size that influence the relationship between financial firm performance and CSR involvement. Future research should further study other mediating variables that could affect this association.

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VAI TRÒ ĐIỀU TIẾT CỦA QUY MÔ VÀ TUỔI THỌ CỦA CÔNG TYTRONG MỐI QUAN HỆ GIỮA CÔNG BỐ TRÁCH NHIỆM XÃ HỘI VÀ HIỆU QUẢ HOẠT ĐỘNG TRONG TƯƠNG LAI CỦA CÔNG TY: BẰNG CHỨNG THỰC TẾ TỪ VIỆT NAM

NGUYỄN THỊ THU HÀ, HUỲNH TẤN DŨNG

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Tóm tắt: Nghiên cứu thực nghiệm đã đưa ra kết quả mâu thuẫn về mối liên hệ giữa việc công bố thông tin trách nhiệm xã hội và hiệu quả hoạt động của công ty. Nghiên cứu của chúng tôi nhằm giải quyết câu hỏi chưa được giải đáp liên quan đến mối quan hệ giữa trách nhiệm xã hội và hiệu quả hoạt động của công ty bằng cách giới thiệu hai biến trung gian (quy mô công ty và tuổi thọ của công ty) ảnh hưởng đến mối quan hệ này. Hiểu biến điều tiết (tức là, tuổi thọ và quy mô của công ty) có thể giúp các nhà nghiên cứu xác định được tình huống mà việc công bố thông tin trách nhiệm xã hội ảnh hưởng tiêu cực đến hiệu quả hoạt động của công ty. Bằng cách sử dụng mẫu của tất cả các công ty niêm yết không thuộc lĩnh vực tài chính trên Sở giao dịch chứng khoán Việt Nam trong giai đoạn từ 2014 đến 2022, chúng tôi nhận thấy một mối quan hệ tỷ lệ nghịch giữa các công ty công bố trách nhiệm xã hội và hiệu quả hoạt động kinh doanh dài hạn của họ (được đo bằng tỷ lệ sinh lời trên tài sản đã điều chỉnh theo quy mô ngành cũng như giá trị Q của Tobin). Các kết quả của bài báo này nhất quán với lý thuyết cung cầu của công ty, như được đề xuất bởi McWilliams và Siegel vào năm 2001, cho thấy rằng các công ty quy mô nhỏ và mới thành lập tham gia vào hoạt động trách nhiệm xã hội doanh nghiệp không làm tăng hiệu suất tài chính của một công ty.

Từ khóa: firm age, firm size, corporate social reporting, firm performance

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