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Corporate Sustainability Performance (CSP), Leverage Adjustment, and Financial Performance

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A B S T R A C T

The study aims to examine the impact of corporate sustainability performance (CSP) on corporate financial performance (CFP) and corporate leverage adjustment of publicly listed companies in Southeast Asia. We studied the indirect effect of CSP on CFP through leverage adjustment using the generalized method of moments to estimate the target of the firm's leverage. We analyzed 968 firm-year observations from 121 companies from 2012–2019 using generalized least squares. We find that CSP exerts both a direct and an indirect influence on corporate financial performance (CFP). CSP affects CFP positively through leverage adjustment in an indirect manner. CSP encourages the firm to move faster to their target leverage, while the faster leverage adjustment improves corporate financial performance. The indirect effects of CSP on CFP might indicate the substantial financial resources required to undertake CSP initiatives. The results support the stakeholder theory and capital structure theory, with a particular emphasis on the dynamic trade-off theory. Empirical research has indicated that the relationship between CSP and CFP yields varying outcomes, which may imply the existence of confounding variables that we conjecture are associated with corporate capital structure.

A R T I C L E I N F O

1. INTRODUCTION

Many studies in the last few decades have considered CSP to be a key factor in superior financial performance (Goyal et al., 2013). Firms engage in CSP activities as a strategy to strengthen the firm's culture and develop internal resources, such as employee morality, loyalty, commitment, and motivation (Jung et al., 2018; Brammer et al., 2007). The firm's culture encourages employee productivity and increased sales (Lins et al., 2017; Ridwan et al., 2023). However, engaging in CSP activities requires some funds, which might hinder investment in business operations. CSP investment also creates opportunities for moral hazard behavior from the management. Management may utilize the company's social activity funds for personal gains rather than direct them toward the firm's strategic, social, or environmental activities. CSP does not guarantee an enhancement in financial performance. Hence, additional investigations are required to comprehend the relationship bertween CSP on CFP.

Stakeholder theory explains the positive CSP-CFP relationship, incorporating stakeholders' interests into shareholders' returns. However, investing in sustainable activities to address stakeholders' interests requires a large amount of funds, which burdens the company significantly. Therefore, the company should have a solid financial position and a source of reverse funds, as indicated by the rapid leverage adjustment. Superior CSP based on dynamic trade-off theory enables firms to modify their leverage more quickly by reducing adjustment costs to achieve their optimal leverage faster and maximize firm value (Ho et al., 2021; Modigliani & Miller, 1963).

The literature on voluntary disclosure suggests that CSP affects the costs associated with adjusting leverage. Companies that possess exceptional CSP disclose more information, mitigating information asymmetry among stakeholders and companies. These firms could potentially mitigate agency conflict, resulting in lower monitoring costs. The decrease in costs associated with leverage adjustment results in an acceleration of the leverage adjustment process, enabling firms to attain their optimal leverage faster (Öztekin & Flannery, 2012; Çolak et al., 2018). The firm that achieves optimal leverage faster shows high funding flexibility and low adjustment costs. This firm possesses a high speed of leverage adjustment while bearing a low cost of capital, which allows it to optimize the firm's value (Bouraoui & Li, 2014).

Previous studies in CSP and CFP show inconsistent results, suggesting that there is a certain amount of unexplained variance despite the positive relationship shown by most empirical studies. Thus, this paper offers novelty by examining the potential contingent variables that mediate CSP and CFP, namely leverage adjustment. The research is conducted in a different geographic and economic context from most previous studies, namely Southeast Asia. The majority of the previous studies were set in developed countries that have different environmental performance characteristics from developing countries, such as most countries in Southeast Asia (Ding & Beh, 2022). Research in leverage adjustment in Southeast Asia is still limited to proving the dynamic trade-off theory conducted or solely examining the effect of CFP on leverage (Chua et al., 2021; Heryana et al., 2023).

Our research's objective is to examine the correlation among CSP, leverage adjustment, and corporate CFP, as well as conjecture that corporate leverage adjustment mediates the CSP and CFP relationship. This paper contributes to the literature on corporate non-financial, financial performances, and corporate capital structure by highlighting the empirical evidence of the indirect relationship between CSP and CFP through leverage adjustment. Our research focuses on the mediation model and the adoption of the dynamic partial adjustment approach. Thus, this research extends beyond previous literature that exclusively examines the direct influence of CSP on leverage adjustment (Do et al., 2020; Ho et al., 2021) and the CSP-CFP relationship (Nyeadi et al., 2018; Mikolajek-Gocejna, 2016; Esteban-Sanchez et al., 2017; Yuliyanti & Nugraha, 2023).

2. METHODS

The data in this study was acquired from multiple sources. We used samples from publicly listed companies on the Indonesia Stock Exchange (IDX), the Stock Exchange of Thailand, Philippine Stock Exchange (PSE), Bursa Malaysia, and Singapore Exchange (SGX). Certain criteria are utilized to select samples in this research. First, we excluded financial companies following conventional practices (Do et al., 2020). To mitigate the potential bias, as suggested by Ho et al. (2021), we excluded companies that lacked data for a minimum of two consecutive years. In order to mitigate the impact of outliers, we employed case-wise diagnostics to trim both the independent and dependent variables. The study's samples comprised 968 firm-year observations derived from 121 companies, covering the time frame of 2012 to 2019.

This paper investigates the correlation among CSP, CFP, and leverage adjustment. We also conjecture that leverage adjustment mediates the effect of CSP on CFP. We test our hypotheses using regression analysis, namely generalized least squares (GLS). The GLS method is employed to address issues of heteroskedasticity within the panel data, which can lead to inefficient and biased estimations when using ordinary least squares (OLS). The GLS is a method that applies OLS to variables that have been transformed. The GLS ensures that the assumptions of conventional least squares are met, resulting in an estimate that is the Best Linear Unbiased Estimator (BLUE). We measured CFP as return on equity (ROE), leverage adjustment as the changes in book leverage, and CSP as ESG scores.

We adopted a partial adjustment model that allows a dynamic leverage adjustment toward target leverage, where the target leverage was estimated by employing the generalized method of moment. We use the generalized method of moment system for our dynamic panel data model to obtain more reliable results. The GMM is favored over OLS and fixed effect estimators due to the possibility of biased and inconsistent estimates in the latter methods (Baltagi, 2013). We considered the following equation to estimate target leverage, $L^*_{i,j,t+1} = \beta X_{i,j,t}$. This study estimates the partial adjustment model for leverage adjustment as follows:

$$L_{i,j,t+1} - L_{i,j,t} = = \gamma\big(L^*_{i,j,t+1} - L_{i,j,t}\big) + \vartheta_{i,j,t+1} \tag{1}$$

Substituting equations one and two and the function of target leverage.

$$L_{i,j,t+1} = (\gamma\beta)X_{i,j,t} + (1 - \gamma)L_{i,j,t} + \vartheta_{i,j,t+1} \tag{2}$$

The coefficient γ estimates the speed at which firms adjust their current leverage to target leverage. We express (varies with firm and industry characteristics and CSP).

$$\gamma_{i,j,t} = \phi_{i,j,t}CSP_{i,j,t} + \rho_{i,j,t}X_{i,j,t} + \varepsilon_{i,j,t} \tag{3}$$

Substituting equations 3 and 2.

$$L_{i,j,t+1} - L_{i,j,t} = \big(\phi_{i,j,t}CSP_{i,j,t} + \rho_{i,j,t}X_{i,j,t}\big)\big(\beta X_{i,j,t} - L_{i,j,t}\big) + \vartheta_{i,j,t+1} \tag{4}$$

Simplifying equation 4 to test the effect of CSP on leverage adjustment or the second hypothesis:

$$\Delta L_{i,j,t+1} = \big(\phi_{i,j,t}CSP_{i,j,t} + \rho_{i,j,t}X_{i,j,t}\big)\big(L^*_{i,j,t+1} - L_{i,j,t}\big) + \vartheta_{i,j,t+1} \tag{5}$$

To test the first and the third hypotheses, we employed the following equations:

$$ROE_{i,j,t} = \alpha + \phi_{i,j,t}CSP_{i,j,t} + \rho_{i,j,t}X_{i,j,t} + \vartheta_{i,j,t} \tag{6}$$

$$ROE_{i,j,t} = \alpha + \omega_{i,j,t}\Delta L_{i,j,t+1} + \rho_{i,j,t}X_{i,j,t} + \vartheta_{i,j,t} \qquad (7)$$

This study controls firm, industry, and country-level characteristics. The firm-level characteristics consist of firm size as a natural logarithm of total assets, depreciation and amortization expenses as a portion of total assets, tangible assets as net plant, property, and equipment scaled by total assets, research and development (R&D) expenses as a portion of total assets, R&D as a dummy variable that equals one if R&D expenses are not reported and zero otherwise, market-to-book ratio as the market-to-book ratio of a firm's assets, and the last is earning before interest and taxes (EBIT) as a portion of total assets only included in the regression of leverage adjustment. We also controlled the industry characteristics using the median of leveraged industries and the country-level characteristics using the GDP growth rate.

3. RESULTS AND DISCUSSION
3.1. Descriptive Statistics

Table 1 offers a concise overview of the descriptive statistics for the variables. The average return on equity (ROE) in this study is 0.8630. The average book leverage in our study is 0.2840, which is higher than the values reported in Oztekin & Flannery (2012) (0.24), An et al. (2015) (0.21), and Ho et al. (2021) (0.227). However, the average ESG scores, which serve as indicators of corporate social performance (CSP), are lower in comparison to previous research. In our study, the average ESG score was 47.0950. In comparison, Cheng et al. (2014) reported a mean ESG score of 52; Sassen et al. (2016) reported a mean ESG score of 61; and Ho et al. (2021) reported a mean ESG score of 52. Cheng et al. (2014) and Ho et al. (2021) investigated the international market, including developing and developed countries. Sassen et al. (2016) also investigated the international market, which focuses on the European market, thus including more developed countries.

Table 1. Descriptive Statistics

Description	N	Minimum	Maximum	Mean	Std. Deviation
ROE	968	-17.4600	643.2200	0.8630	20.7990
Leverage	968	0.0000	1.7110	0.2840	0.1610
ESG Score	968	5.0800	88.9200	47.0950	19.4720
EBIT	968	-0.2300	1.0300	0.0904	0.1056
Dep&Am	968	0.0000	0.3300	0.0398	0.0383
NetPPE	968	0.0000	0.8400	0.3309	0.2098
Size	968	12.1900	18.2300	15.4006	1.0610
R&D Expenses	968	0.0000	0.2500	0.0024	0.0162
Market-to-Book	968	0.5400	23.2900	1.9383	2.1640
Median Industry Leverage	968	0.0000	0.6100	0.2778	0.1090
GDP Growth	968	0.9800	7.2400	4.7102	1.4091

Source: Processed Data (2022)

The results of descriptive statistical tests for each country (**Table 2**) show that the lowest average profitability of 0.03 comes from Thailand. The biggest loss of -17.46 also came from a Thai company. However, Thailand has the highest average ESG score compared to other countries by a significant margin. Thailand's average ESG score is 60.31 out of 100, while the average ESG score of four other countries only ranges from 43 to 46. Thailand's lowest ESG score is 16.12, while the lowest ESG score of the other four countries does not reach 8. Apart from that, Thailand's average leverage is the second highest after the Philippines, namely 0.31 and 0.34, respectively, for Thailand and the

Philippines. The average leverage of the other three countries does not reach 0.30 or is below 0.30. Singapore, as an advanced-economy country, has the lowest average leverage of 0.23.

Table 2. Descriptive Statistics for Indonesia, Malaysia, Singapore, Phillines, and Thailand

	Indonesia		Malaysia		Singapore		Philippines		Thailand	
	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.
N	176	176	264	264	240	240	136	136	152	152
ROE	0,1438	0,6941	2,8574	39,785	0,0901	0,5124	0,2113	0,4532	0,0369	1,6638
Leverage	0,2521	0,2122	0,2989	0,1450	0,2373	0,1528	0,3407	0,1198	0,3181	0,1397
ESG Score	45,207	20,797	45,529	16,936	43,570	19,677	44,031	20,139	60,310	15,472
EBIT	0,1388	0,1160	0,0910	0,1472	0,0571	0,0483	0,0862	0,0277	0,0899	0,0954
Dep&Am	0,0470	0,0399	0,0452	0,0470	0,0263	0,0308	0,0347	0,0311	0,0478	0,0293
NetPPE	0,4504	0,1949	0,3348	0,2022	0,2216	0,1802	0,2730	0,1852	0,4102	0,1988
Size	14,994	0,7939	15,333	0,9966	15,4927	1,2753	15,6789	0,8132	15,5931	1,1233
R&D Expenses	0,0085	0,0347	0,0006	0,0023	0,0027	0,0117	0,0002	0,0007	0,0000	0,0001
Market-to-Book	2,6590	3,533	2,0235	2,3539	1,3423	0,7666	1,7155	0,8465	2,0960	1,74676
Median Industry Leverage	0,2480	0,1099	0,2962	0,0994	0,2664	0,1276	0,3271	0,0814	0,2543	0,0921
GDP Growth	5,2207	0,3605	5,0751	0,5924	3,6147	1,0494	6,6105	0,3453	3,5147	1,7228

Source: Processed Data (2022)

3.2. Hypothesis Testing and Discussion

The primary hypothesis of our research is that CSP positively influences CFP. The outcomes of our empirical examination of the correlation between CSP and CFP are presented in Table 3 equation model (6). The analysis indicates that the CSP coefficient exhibits a statistically significant positive effect at a significance level of 5%. The findings suggest that companies exhibiting superior sustainability performance are more likely to generate higher profits compared to their counterparts with lower CSP. The result aligns with our initial conjecture that the adoption of CSP leads to an enhancement in corporate financial performance.

We find evidence to support stakeholder theory (Freeman, 1984), which believes in the existence of implicit contracts between firms and stakeholders. Stakeholders demand better environmental activities, social responsibilities, and good corporate governance from the firm; thus, the firm is compelled to demonstrate requisite corporate sustainability performance. This relationship between stakeholders and the firm evolves to be a symbiotic exchange when stakeholders (employees, the government, investors, and customers) provide support for the firm's business. Therefore, stakeholders, from the perspective of stakeholder theory, are a part of shareholder return.

These findings are in line with the majority of previous studies that reveal a favorable correlation between CSP and CFP (Platonova, 2018; Vishwanathan et al., 2020; Gras & Krause, 2020). According to Ho et al. (2021), the allocation of resources toward CSP endeavors has the potential to serve as a means of distinguishing a company's product strategy, particularly for those companies that prioritize product innovation and differentiation. Albuquerque et al. (2018) document that firms with high product differentiation exhibit a more pronounced adverse impact of CSP on systemic risk. Albuquerque et al. (2018) have conceptualized CSP as a strategic investment aiming at enhancing product differentiation. This investment opportunity presents the potential for an increase in profitability margins for the company while simultaneously reducing its systematic risk. Moreover, firms that exhibit elevated levels of CSP can market their products at premium prices and achieve

higher sales volumes (Hilger et al., 2019) because of customer loyalty to the company (Luo & Bhattacharya, 2009). They also increase employee productivity and sales growth (Lins et al., 2017).

Table 3. Regression Analysis of Hypothesis Testing

Variable	ROE (6)	ΔL (5)	ROE (7)
CSP	0.0001**		
	(2.1771)		
ΔL			2.2714**
			(2.1735)
DEP&AM	5.4874		26.5648***
	(0.8228)		(3.3063)
TANG	0.2962		-4.8813***
	(0.3239)		(-4.4241)
SIZE	0.5440***		0.6732***
	(4.9867)		(4.7062)
R&D	56.8647**		-33.6412
	(2.2172)		(-0.8944)
R&DDUM	2.1829***		2.2028***
	(5.7134)		(4.3238)
MB	6.8983***		8.4710***
	(38.7800)		(36.5498)
GDP GROWTH	0.5747***		0.5618***
	(6.3255)		(5.1144)
CSP*Dist		0.0002***	
		(4.1565)	
EBIT*Dist		-0.0016	
		(-0.0657)	
DEP&AM*Dist		0.0234	
		(0.6080)	
TANG*Dist		-0.0105	
		(-1.5892)	
SIZE*Dist		0.0001	
		(0.1324)	
R&D*Dist		0.1169	
		(1.2020)	
R&DDUM*Dist		-0.0014	
		(-0.4757)	
MB*Dist		-0.0020	
		(-1.5110)	
INDLEV*Dist		-0.0108**	
		(-2.0978)	
GDPGROWTH*Dist		-0.0007	
		(-1.2441)	
Cons.	-14.2106***	0.0055	-16.6889***
	(-6.9111)	(0.4871)	(6.5014)
F	297.3922***	3.8606***	244.1281***
R Square (R^2)	0.7344	0.0412	0.6743
N	869	909	952

Source: Processed Data (2022)

The findings displayed in **Table 3**, specifically in equation model (5), exhibit congruence with the second hypothesis. The coefficient of interaction terms (CSP*Dist) is positive and significant at the

1% level. The findings indicate that CSP has a positive impact on the speed of leverage adjustment. Therefore, firms with superior CSP can attain optimal leverage faster.

Financial disclosure, or financial performance, has been acknowledged as a determinant of the cost of debt capital (Verrechia, 1983). However, the effect of non-financial performance, such as CSP, is left behind as an open question. The relationship between CSP and debtholders is not broadly explored (Dhaliwal et al., 2011) by theoretical or empirical research. CSP might have different effects on corporate debt because debtholders play a different role than equity holders. Debtholders have a payoff function, which makes them delegated monitors for the company (Allen & Santomero, 1997).

Few studies examine the correlation between CSP and credit-related topics such as credit risk (Stellner et al., 2015; Sassen et al., 2016), cost of capital (Bae et al., 2019), credit rating (Attig et al., 2013), and leverage adjustment (Do et al., 2020; Ho et al., 2021). These studies generate varying results. Stellner et al. (2015) discovered that the impact of CSP on credit risk is contingent upon the sustainability performance of the country. Firms benefit from high CSP primarily as a means of mitigating risk, but this is contingent upon their operations being situated within a nation that exhibits a commensurate degree of sustainability performance at the macro level. However, Hoepner et al. (2016) were unable to establish any significant correlation between CSP and the cost of bank loans. The evidence in favor of the adverse effect of CSP on credit risk is limited (Stellner et al., 2015).

The literature on voluntary disclosure suggests that CSP has an impact on the cost of leverage adjustment. The effect, according to Ho et al. (2021), is attributed to the influence of CSP on shaping the conduct of firms. Organizations that exhibit superior environmental, social, and governance typically publish ESG reports alongside a sustainability strategy (Dhaliwal et al., 2006) as a means of indicating the positive performance of the firm (Clarkson et al., 2008). They also tend to avoid accrual and real earnings management because they have more ethical managers (Kim et al., 2012). Therefore, the companies generate financial reports that are more transparent and reliable. Firms that possess exceptional CSP disclose more information, which in turn mitigates information asymmetry among stakeholders and companies. These firms could potentially mitigate agency conflict, resulting in lower monitoring costs. The reduction in the costs related to leverage adjustment leads to a hastening of the leverage adjustment process, allowing companies to achieve their ideal leverage more quickly.

Our findings confirm Ho et al. (2021) and Do et al. (2020), which indicate a favorable impact of CSP on leverage adjustment. According to dynamic trade-off theory, CSP has been shown to facilitate reductions in adjustment costs. A company with a high CSP establishes a better information environment and builds stronger relations with its stakeholders. The firm tends to disclose a greater amount of data, thereby augmenting the transparency of information and diminishing agency costs (Dhaliwal et al., 2016). The firm also has investors that are less responsive toward unfavorable news and suboptimal stock performance, resulting in a decrease in the firm's equity cost (Cao et al., 2023; Starks et al., 2017). Firms with low equity and monitoring costs possess the ability to promptly adjust their leverage. It has been observed that companies that excel in social responsibility tend to attain their optimal leverage more quickly than their competitors.

Table 3 equation model (7) presents the result that supports the third hypothesis with the coefficient of leverage adjustment, which is statistically significant at 5%. The findings provide evidence in favor of the dynamic trade-off theory, which posits that a firm can enhance firm value by optimizing its leverage ratio to align with the target leverage.

The classical trade-off theory predicts that firms engage in capital structure adjustment to achieve an optimal level that balances the benefits of corporate tax shields against the expected costs of financial distress. According to the trade-off theory, companies adjust their leverage in response to changes in profitability. In response to a favorable profitability shock, companies tend

to either release debt or buy back equity, leading to a positive association between leverage and profitability. Simultaneously, companies that adopt a passive stance during a period of favorable profitability shock exhibit an adverse correlation between leverage and profitability. However, the available empirical evidence from more than six decades of research shows mixed empirical support, which leads to the leverage-profitability puzzle (Deangelo, 2022).

Our findings contradict Eckbo & Kisser (2021) and DeAngelo (2022). Eckbo & Kisser (2021) conducted a study utilizing data from industrial firms in the United States and identified a strong inverse relationship between profitability and leverage for both periods with and without rebalancing. However, the empirical model adopted by Eckbo & Kisser (2021) lacks variable transaction costs and only calculates the fixed rebalancing costs. However, our results are aligned with Danis et al. (2014). A novel test claimed by Danis et al. (2014) successfully ascertains corroborative evidence in favor of the dynamic trade-off theory. A model with dummy variables was composed by Danis et al. (2014) to indicate a firm that is rebalancing or not. The utilization of this methodology enables the differentiation of companies that operate at their optimal leverage from those that exhibit deviations from it. The findings indicate conformity with the dynamic trade-off theory, wherein during the rebalancing period, a positive correlation between leverage and profitability exists. Conversely, during time intervals without rebalancing, the correlation between leverage and profitability is negative.

Tarkom & Huang (2023) empirically documented that firms moved faster towards target book leverage while slower to target market leverage during the pandemic. The phenomenon indicates that firms were more proactive in aligning the actual leverage with target book ratios in response to economic challenges, but the firms were slower to adjust the market leverage due to high market volatility and risk aversion during pandemic.

Our results reject the leverage-profitability puzzle while supporting the capital structure theory, particularly the dynamic trade-off theory. Our findings suggest that firms trade the costs (i.e., agency costs, cost of financial distress, and transaction costs) and the benefits (i.e., tax shield) in the rebalancing period while maximizing the firm value. Due to the effect of capital structure on funding resources, cost of capital, nature of risks, liquidation position, investor returns, and company valuation, firms must carefully manage their leverage (Bajaj et al., 2020). According to Danis et al. (2014), a positive correlation between profitability and leverage exists, but only when firms make adjustments to their leverage in order to achieve optimal levels.

3.3. Mediated Effect Analysis

This study employs the causal steps approach by Baron & Kenny (1986) and utilizes the Sobel test, Aroian test, and Goodman test to examine the mediated effect of leverage adjustment on the relationship between CSP and CFP. We obtain the Z-value for the Sobel test of 1.92, the Aroian test of 1.88, and the Goodman test of 1.97. In sum, leverage adjustment has a weakly significant mediated effect at 10% based on the Sobel test and the Aronian test, while the mediated effect is stronger at 5% based on the Goodman test. In consistency with Baron & Kenny (1986), in all three outcomes, the unmediated main effect is significant and possesses the same positive signs. Furthermore, the inclusion of the mediator as another independent variable in multiple regression reveals a positive significant effect of leverage adjustment at 1% and a positive significant effect of CSP at 5% (**Table 4**). Therefore, the findings suggest that CSP has an incomplete indirect effect on CFP through leverage adjustment. Specifically, CSP can enhance corporate financial performance directly by garnering support from stakeholders or indirectly through leverage adjustment by reducing adjustment costs such as those of financial distress, equity, agency, and transaction. The findings confirm the results of descriptive statistics that show Thailand, with the highest average ESG score among the sample, also has the lowest average profitability, while Thailand's average

leverage is the second highest. This phenomenon in Thailand might happen due to low support from stakeholders and slow leverage adjustment.

Table 4. Mediated Effect Analysis

Variable	ROE (8)
CSP	0.0001**
	(1.9729)
ΔL	4.5354***
	(4.0003)
Control Variables	Yes
	Yes
Cons.	-12.9336***
	(-5.4387)
F	258.2826***
R Square (R^2)	0.7301
N	869

Source: Processed Data (2022)

These findings support the previous research of Pagratis et al. (2020) and Guiral (2012). Prior research conducted by Pagratis (2020) indicates that banks in the United States (US) and Europe employ leverage as a means to attain specific financial performance objectives. Guiral's (2012) experimental research reveals that loan officers have a tendency to grant loan applications for initiatives linked to CSP rather than for innovation. Loan officers view investment in CSP activities as a sign of excellent firm financial success. Superior CSP based on dynamic trade-off theory enables firms to modify their leverage more quickly by reducing the costs of adjustment (Ho et al., 2021), including agency costs, transaction costs (Cheng et al., 2014), the cost of equity capital (Breur et al., 2018; El Ghoul et al., 2018), and the cost of bank loans (Goss & Roberts, 2011). Companies with superior CSP gain more advantages derived from environmental, social, and governance (ESG) activities compared to the expenses to provide the ESG activities. Thus, CSP is not only an expense for the company but also a tool to mitigate the risk for the bottom line.

4. CONCLUSION

Consistent with our prediction, our findings indicate a favorable impact of CSP on CFP and leverage adjustment. We found a positive effect of CSP on CFP and leverage adjustment. The findings indicate that the adoption of CSP leads to a positive impact on CFP and facilitates a more rapid adjustment of leverage. We also investigate the indirect effect of CSP on CFP through leverage adjustment by adopting the causal steps approach by Baron & Kenny (1986) and estimating the confidence level for the mediated effect based on the Sobel test, Aroian test, and Goodman test. The results suggest that CSP has an incomplete indirect effect on CFP through leverage adjustment.

This study suggests that a firm's non-financial performance (e.g., CSP) and the adjustment of the firm's capital structure (i.e., leverage adjustment) determine corporate financial performance. Therefore, management needs to consider CSP and the speed of leverage adjustment in evaluating corporate financial performance. Investing in sustainable activities would improve corporate financial performance while taking into account overall capital needs. The findings also indicate to investors the need to consider the firm's non-financial performance, such as CSP, in company valuation to make the right investment decision. This paper also advocates for government or regulators involvement in creating a sustainable development framework at the macro level that strengthens the beneficial impact of CSP on business financial performance.

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