

## **SUSTAINABLE SUCCESS: THE CRUCIAL ROLE OF SOCIAL AND ENVIRONMENTAL RESPONSIBILITY IN BUSINESS PERFORMANCE**

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**Abstract:** The increasing population in Indonesia leads to a rise in energy consumption, which has a severe impact on the environment. To fulfill their social responsibility, companies in the industrial sector need to allocate a part of their profit to Corporate Social Responsibility (CSR) activities. This study aims to examine the moderating effect of the company's life cycle on the relationship between CSR cost allocation and market performance. A quantitative research method was adopted, and the data was collected from 90 companies in the industrial energy sector listed on the Indonesia Stock Exchange for the period 2017-2021. The moderated regression analysis was employed to analyze the data using E Views software. The findings indicate a positive impact of CSR cost allocation on market performance, whereas the company's life cycle did not affect this relationship. This research adds to the literature on the effect of CSR cost allocation on market performance and provides insights and information for companies and investors. Companies can enhance their market performance by paying attention to the allocation of CSR costs, and investors can use this information to make informed investment decisions. Companies that allocate funds to CSR activities can improve their market performance.

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**Keywords:** Corporate social responsibility, market performance, life cycle, cost allocation, industrial energy sector, Indonesia.

### **Introduction**

This study uses quantitative data in the form of annual financial reports for energy industry sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period obtained on the Indonesia Stock Exchange's website, namely [www.idx.co.id](http://www.idx.co.id). Based on the criteria in this study, the number of companies selected as research samples was 18 companies with 90 observed data. The financial report data used are the value of total assets, total equity, outstanding shares and related company cash flows. Regarding the share price data for each company, it was obtained from the website [www.finance.yahoo.com](http://www.finance.yahoo.com). This research technique is Moderated Regression Analysis (MRA) using E Views.

The dependent variable in this study is market performance. Market Value Added (MVA) as a measure of market-based company financial performance. The MVA calculation is done by calculating the market value or company value minus the invested capital (Aggerholm & Trapp, 2014), written mathematically as follows:  
$$MVA = (\text{Number of shares} \times \text{market price}) - \text{Total Equity}$$

The independent variable in this study is CSR cost allocation. The allocation of CSR costs is the total funds spent to carry out corporate social responsibility. CSR is the result achieved by the company as seen from the reciprocal activities that have been carried out by the company towards society and the environment. In this study, the proxy used to measure CSR cost allocation is the CSR cost ratio. Mathematically, the CSR cost ratio can be calculated using the following formula (Pyo and Lee, 2013):

$$\text{CSR Expenditure Ratio} = \frac{\text{Total CSR Expenditure}}{\text{Total Aset}}$$

The moderating variable in this study is the corporate life cycle. The researcher uses a corporate life cycle proxy based on Dickinson (2011) which captures different corporate life cycle stages. Classification of sample companies into different corporate life cycle stages based on cash flow patterns using the following code:

- (1) Introduction: if OANCF < 0, IVNCF < 0 and FINCF > 0 then given code 1
- (2) Growth: if OANCF > 0, IVNCF < 0 and FINCF > 0 then given code 2
- (3) Mature: if OANCF > 0, IVNCF < 0 and FINCF < 0 then given code 3
- (4) Decline: if OANCF < 0, IVNCF > 0 and FINCF - or 0 then given code 4
- (5) Shake-out: if it is not included in the other four stages then it is classified in the shake-out stage by giving code 5

The MRA model used to test the research hypothesis is.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + e \dots \dots \dots (1)$$

**RESULTS**

Descriptive analysis is used to show the condition of the data in this study. The following is a summary of the results of the descriptive analysis of the dependent variable, namely market performance and the independent variable, namely CSR cost allocation, the moderating variable, namely the corporate life cycle.

**Table 1. Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Market Performance	10	9,025	13,401	16,421	1,297
CSR Cost Allocation	10	12,618	2,396	7,736	1,393
Corporate Life Cycle	10	1,000	1,000	1,144	1,223

Source: *Data processed, (2022)*

The standard deviation of the CSR cost allocation variable shows a value of 2.393. The standard deviation value which is higher than the mean value indicates that the distribution of information quality data is uneven. As for market performance and corporate life cycle variables, both have a standard deviation value that is lower than the average value, which means that the two variables have a normal distribution of data. The model significance test in this study was carried out through 3 stages. The first stage is the Chow Test, followed by the Hausman Test and the Lagrange Multiplier Test. The results of the model significance test in this study are as follows:

**Table 2. Model Significance Test**

Test	Rule of Thumb	Results	Decision
Chow Test	FEM vs CEM	Cross-section Chi-square Prob 1,005 ( $\alpha < 0.05 = \text{Fixed effect model}$ , $t > 0.05 = \text{Common effect model}$ )	FEM

Hausman Test	FEM vs REM	Cross-section random Prob.	0,028	FEM
		$\alpha < 0.05 = \text{Fixed effect model,}$		
		$\alpha > 0.05 = \text{Random effect model)}$		

Source: *Data processed, (2022)*

The results of the Chow test in this study show a probability value greater than 0.05, so the exact model used is the Fixed Effect Model (FEM). The results of the Hausman test in this study indicate that the probability value is greater than 0.05, so the model used is the Fixed Effect Model (FEM). Based on the results of the Chow test and Hausman test, researchers can conclude that the panel data regression model used is the Fixed Effect Model (FEM) to analyze the data in this study.

The following table shows the results of the Fixed Effect Model (FEM) panel data regression analysis with the Moderated Regression Analysis test used to analyze the t test, F test and Coefficient of Determination Test (R<sup>2</sup>).

**Table 3. Hypothesis Test**

Variables	Coefficient	-Statistics	Prob.
Y	1,205	1,090	1,000
CSR Cost Allocation	0,790	2,127	0,037
Corporate Life Cycle	0,479	1,029	0,046
CSR Cost Allocation_ Corporate Life Cycle	21,053	0,992	0,325
Adjusted R-squared		0,500	
F-statistics		5,466	
Prob(F-statistics)		0,000	

Source: *Data processed, (2022)*

Based on the calculations in Table 3, it shows that this research model has a calculated F value of 5.466 and a probability value that is smaller than 0.05, namely 0.000. So it can be concluded that the CSR cost allocation variable, the corporate life cycle, and the interaction variable between the CSR cost allocation and the corporate life cycle simultaneously are significant explanations for the dependent variable, namely market performance.

The independent variable CSR cost allocation has a coefficient value of 0.790 with a t-count of 2.127 which is greater than the t-table of 1.663 and a probability value of 0.037 < 0.05. This means that the CSR cost allocation has a significant positive effect on market performance, which means that an increase in CSR cost allocation will improve market performance. The results of this study are in line with research conducted by Mardiandari and Rustiyarningsih (2013); and Yudharma et al., (2017).

Signaling theory or signaling theory was first put forward by Spence (1973) which explained that the sender (owner of the information) gives a signal or signal in the form of information that reflects the condition of a company that is beneficial to the recipient (investor). According to Brigham and Houston (2011) signal theory explains management's perception of company growth in the future, which will affect the response of potential investors to the company. The signal is in the form of information that explains management's efforts to realize the owner's wishes. This information is considered as an important indicator for investors and business people in making investment decisions.

Based on signaling theory, CSR disclosure contains information that makes it easy for investors to make decisions and can provide certainty and security for investors to invest in the capital market (Dewi et al., 2014). Companies that disclose social responsibility will be more attractive to investors because these companies do not only focus on earning profits, but also pay attention to environmental and social issues (Almilia & Wijayanto, 2007). Companies that carry out CSR activities also have a good image in the community and can increase trust so that people are more loyal to the company. CSR activities can also have

an impact on employees, whereby spending on welfare will make employees more loyal to the company so that employees will be more productive because they feel cared for by the company and increased company productivity will cause sales of the company's products to increase and will affect profits (Yudharma , et al., 2016) and its market performance.

The results of this study indicate that the interaction variable CSR cost allocation and corporate life cycle has a coefficient of -21.053 with a t-count of -0.992 which is smaller than the t-table of 1.663 and a probability value of  $0.325 > 0.05$ . These results indicate that the corporate life cycle variable cannot moderate the effect of CSR cost allocation on market performance. The company life cycle or corporate life cycle is a process of company development through several linear and sequential stages (Bhaird, 2010). A company has four cycle stages, namely start-up, growth, maturity, and decline.

The corporate life cycle is unable to moderate the effect of CSR fund allocation on market performance. It is possible that CSR activities can provide direction for companies in using company resources to meet stakeholder needs. CSR also does not only focus on maximizing shareholder value, but can balance the interests of all different stakeholders. Companies that carry out CSR activities are considered to have a responsibility towards the surrounding environment and have a good image and reputation in the community. This can provide protection for the company when the company has poor performance and reduce the negative assessment of shareholders. Based on this, CSR activities need to be carried out by companies throughout the company's life cycle, so that it can be said that the company's life cycle does not moderate the effect of CSR fund allocation on market performance. The direction of negative results indicates that the corporate life cycle does not significantly weaken the effect of CSR fund allocation on market performance. These results contradict the slack resource theory which states that companies will only use funds for sustainable activities when they have good financial conditions (Waddock & Graves, 1997).

## CONCLUSION

This study aims to obtain empirical evidence regarding the effect of CSR cost allocation on market performance which is moderated by the corporate life cycle. Based on the results of empirical testing and discussion, several conclusions are obtained, namely the allocation of CSR costs has a positive effect on market performance. This shows that the higher the cost of CSR owned by a company, the higher its market performance. Meanwhile, the corporate life cycle does not moderate the effect of CSR cost allocation on market performance.

The results of this study are expected to be able to provide empirical evidence regarding signaling theory. The results of this study indicate that the allocation of CSR funds can increase market performance while the corporate life cycle is not a moderating variable because it cannot significantly strengthen the effect of CSR fund allocation on market performance. Companies that carry out CSR activities can also reduce negative ratings from investors when the company has poor performance. Therefore, companies must pay attention to the allocation of CSR funds and disclose CSR activities carried out in order to provide a positive signal to investors.

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