

The effect of CSR and Leverage on Financial Performance with Firm Size Moderation

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Submitted: 03/01/2026; Accepted: 07/01/2026; Published: 23/01/2026

Abstract—This study examines the effect of Corporate Social Responsibility (CSR) and leverage on financial performance, with firm size as a moderating variable, in food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period. This research is conducted to address inconsistencies in previous findings regarding the financial consequences of CSR implementation and leverage decisions. The population consists of 95 listed companies, of which 65 companies were selected through purposive sampling, resulting in 130 firm-year observations. CSR is measured using the Corporate Social Disclosure Index (CSDI), leverage is proxied by the Debt to Equity Ratio (DER), financial performance is measured by Return on Assets (ROA), and firm size is measured using the natural logarithm of total assets. Data were analyzed using multiple linear regression and Moderating Regression Analysis (MRA) with SPSS. Prior to hypothesis testing, classical assumption tests were conducted, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests. Hypothesis testing employed the t-test, while the coefficient of determination (R^2) was used to assess the explanatory power of the model. The results indicate that CSR has a negative but insignificant effect on financial performance, whereas leverage has a negative and significant effect. Firm size significantly moderates the relationship between CSR and financial performance, but does not moderate the leverage and financial performance.

Keywords: CSR; Leverage; Financial Performance; Firm Size

1. INTRODUCTION

The food and beverage industry is an integral part of the manufacturing sector and plays a strategic role in supporting national economic growth. According to the Indonesian Minister of Industry, Agus Gumiwang Kartasasmita (2025), the food and beverage industry has consistently made a significant contribution to Indonesia's Gross Domestic Product (GDP). In 2025, this subsector accounted for approximately 41 percent of the non-oil and gas manufacturing GDP, making it the largest contributor among all manufacturing subsectors. Although the food and beverage industry experienced a sharp decline in 2020 due to the impact of the Covid-19 pandemic, it demonstrated a strong recovery in the subsequent years (Putri, 2025). Data released by the Central Bureau of Statistics (Badan Pusat Statistik) for the period 2015–2024 indicate that the growth of the food and beverage subsector fluctuated over time; however, despite these fluctuations, the sector continues to show strong resilience and promising long-term prospects. This condition makes the food and beverage industry particularly attractive to investors seeking sustainable returns.

For investors, the availability of reliable corporate information is crucial in ensuring sound investment decisions. One of the most important aspects considered by investors is corporate financial performance. Financial performance reflects a company's ability to manage its assets, liabilities, and equity effectively to generate optimal profits (Herdiyana et al., 2020). Kasmir (2016) defines financial performance as the results achieved by a company in managing its financial resources over a certain period. In an increasingly competitive business environment, financial performance becomes a key determinant of a firm's survival and growth (Nur Hidayatillah & Muhammad Yasin, 2023). Therefore, understanding the factors that influence financial performance is essential, particularly in sectors with high economic significance such as food and beverage manufacturing.

Previous studies have identified several factors that affect corporate financial performance, including Corporate Social Responsibility (CSR), leverage, and firm size (Nawangwulan, 2019). Corporate Social Responsibility represents a company's commitment to conducting business ethically, contributing to sustainable development, and improving the quality of life of employees, local communities, and other stakeholders (Hadi, 2011). In recent years, CSR has gained increasing attention from academics and practitioners, as it is no longer viewed merely as a social obligation but also as a strategic tool that can enhance corporate value (Pramiana & Anisah, 2018). CSR activities are believed to strengthen corporate reputation, increase consumer trust and loyalty, and foster harmonious relationships with stakeholders, which ultimately contribute to improved financial performance (Laila & Rahayu, 2023).

In addition to CSR, leverage is another critical factor influencing financial performance. Leverage refers to the extent to which a company finances its assets through debt, and it indicates the firm's ability to meet both short-term and long-term obligations (Kasmir, 2016). One commonly used measure of leverage is the debt-to-equity ratio, which reflects the company's capital structure and plays an important role in assessing financial risk and return (Nukala & Prasada Rao, 2021). Efficient use of debt can enable companies to expand their operational activities and improve profitability (Suaidah et al., 2024). However, excessive leverage may lead to higher interest expenses and increased default risk, which can negatively affect financial performance (Arhinful & Radmehr, 2023). Consequently, the relationship between leverage and financial performance remains a critical issue in financial management research.

Empirical findings on the impact of CSR and leverage on financial performance, however, have produced inconsistent results. Several studies report that CSR has a significant positive effect on financial performance (Amartiya & Minan, 2022; Laila & Rahayu, 2023; Mustofa & Suaidah, 2021; Suaidah & Kartini Putri, 2020). These findings suggest that companies that actively disclose and implement CSR practices tend to achieve better financial outcomes. In contrast, other studies indicate that CSR does not have a significant effect on financial performance (Hartanto & Susilowati, 2024; Wardhani, 2021). Similar inconsistencies are also found in studies examining the effect of leverage on financial performance. While some researchers find that leverage significantly influences financial performance (Amartiya & Minan, 2022; Dewi et al., 2021), others report insignificant results (Hartanto & Susilowati, 2024). These contradictory findings highlight the existence of a research gap that requires further empirical investigation.

Firm size is considered a potential moderating variable that may explain the inconsistencies in previous findings. According to (Brigham & Houston, 2021), firm size reflects the scale of a company and can be measured using indicators such as total assets, total sales, total debt, or total equity. Larger firms generally possess greater financial and operational resources, enabling them to implement CSR programs more effectively and manage debt more efficiently. As a result, firm size may strengthen the relationship between CSR and financial performance, as larger companies face stronger stakeholder pressure while simultaneously having more resources to fulfill social responsibilities (Amartiya & Minan, 2022). This argument is supported by Dewi et al. (2021), who found that firm size moderates the relationship between CSR and financial performance. However, Amartiya & Minan (2022) reported contradictory results, indicating that firm size does not significantly moderate the effect of CSR on financial performance. These mixed findings further reinforce the presence of a research gap.

Firm size may also play a moderating role in the relationship between leverage and financial performance. Larger firms tend to have higher leverage ratios because they are perceived as more stable and capable of managing financial obligations, thereby increasing creditors' confidence (Ariadi & Ardiani, 2024). Access to external financing for large firms is often based on their asset base, which may influence how leverage affects financial performance. Ariadi & Ardiani (2024) found that firm size moderates the relationship between leverage and financial performance. In contrast, Amartiya & Minan (2022) concluded that firm size does not act as a moderating variable in the leverage–financial performance relationship. This inconsistency suggests that the moderating role of firm size remains inconclusive.

Given the inconsistencies in previous empirical findings regarding the effects of Corporate Social Responsibility and leverage on financial performance, as well as the moderating role of firm size, further research is warranted. Therefore, this study aims to re-examine the effect of CSR disclosure and leverage on financial performance, with firm size as a moderating variable. The study focuses on food and beverage companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. This study is expected to provide both theoretical and practical contributions. From a theoretical perspective, the findings are anticipated to enrich the accounting literature by offering empirical evidence on the effect of Corporate Social Responsibility (CSR) disclosure and leverage on financial performance, with firm size serving as a moderating variable, and to serve as a reference for future research. From a practical perspective, the results are expected to be useful for management and investors as a consideration in strategic decision-making, as well as for regulators in understanding the conditions of the food and beverage sector listed on the Indonesia Stock Exchange, which may serve as a basis for policy formulation.

2. RESEARCH METHODS

2.1 Basic Research Framework

This study employs a quantitative research approach to examine the relationships among Corporate Social Responsibility (CSR), leverage, firm size, and financial performance. According to Sugiyono (2023), quantitative research emphasizes the use of numerical data, starting from data collection and processing to interpretation and presentation of research results. Therefore, this study uses numerical secondary data obtained from the annual reports and sustainability reports of food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period. The quantitative approach is considered appropriate because it allows objective measurement of the relationships among variables using statistical analysis.

The objective of this study is to analyze the effect of Corporate Social Responsibility (CSR) and leverage on financial performance, with firm size serving as a moderating variable. The focus on the food and beverage sub-sector is motivated by its significant contribution to the Indonesian economy and its increasing exposure to stakeholder demands related to social responsibility, financial transparency, and sustainable business practices.

The population of this study consists of 95 food and beverage sub-sector companies listed on the IDX during the observation period. The research sample is determined using purposive sampling, which is a sampling technique based on specific criteria to ensure the relevance and completeness of the data used in the analysis (Sugiyono, 2023). The sampling criteria include companies that were consistently listed on the IDX throughout the 2023–2024 period and published complete annual reports and or sustainability reports. Based on these criteria, 30 companies were excluded, resulting in a final sample of 65 companies. With two years of observation, the total number of research observations amounts to 130 firm-year data.

This study employs Corporate Social Responsibility (CSR) and leverage as independent variables, financial performance as the dependent variable, and firm size as a moderating variable. CSR is measured using the Corporate

Social Disclosure Index (CSDI), which assesses the extent of CSR disclosure by companies based on a disclosure checklist derived from the framework developed by (Haniffa & Cooke, 2005). The CSDI reflects the level of corporate transparency in reporting social and environmental responsibilities. Leverage is proxied by the Debt to Equity Ratio (DER), which measures the proportion of total debt relative to shareholders' equity and indicates the extent to which company operations are financed by debt (Kasmir, 2016). Financial performance is measured using Return on Assets (ROA), which represents the company's ability to generate net income from its total assets and is widely used to evaluate managerial efficiency in asset utilization (Kasmir, 2016). Firm size is measured by the natural logarithm of total assets, as larger firms generally possess greater resources, higher public visibility, and stronger stakeholder pressure, which may influence corporate financial decisions and performance outcomes (Brigham & Houston, 2021).

The relationships among these variables are developed based on stakeholder theory and agency theory. Stakeholder theory suggests that companies implementing CSR activities are more likely to gain legitimacy, trust, and support from stakeholders, which may enhance financial performance (Freeman, 1984). Agency theory explains that leverage decisions affect a firm's risk and profitability due to conflicts of interest between principals and agents, thereby influencing financial performance (Jensen & Meckling, 1976). Firm size is expected to moderate these relationships, as larger firms generally possess greater resources, higher visibility, and stronger stakeholder pressure, which may strengthen or weaken the effects of CSR and leverage on financial performance. The conceptual framework of this study illustrates both the direct effects of CSR and leverage on financial performance and the moderating role of firm size.

Based on the conceptual framework, the hypotheses of this study are formulated as follows:

H1: Corporate Social Responsibility (CSR) has an effect on financial performance.

H2: Leverage has an effect on financial performance.

H3: Firm size moderates the relationship between Corporate Social Responsibility (CSR) and financial performance.

H4: Firm size moderates the relationship between leverage and financial performance.

Based on the research hypotheses above, Figure 1 presents the conceptual framework of this study.

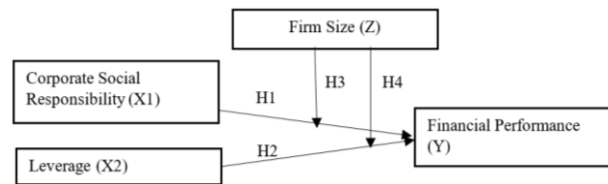


Figure 1. Conceptual Framework

Data analysis is conducted using SPSS software. The analytical technique applied in this study is multiple linear regression combined with Moderating Regression Analysis (MRA). According to Ghozali (2018), MRA is an extension of multiple regression analysis that incorporates interaction terms between independent variables and a moderating variable to assess moderation effects. Prior to hypothesis testing, classical assumption tests are performed to ensure the validity of the regression model. These tests include the normality test to examine the distribution of residuals, the multicollinearity test to detect correlations among independent variables, the heteroscedasticity test to assess variance consistency, and the autocorrelation test to identify residual correlations. Hypothesis testing is conducted using the t-test to examine the significance of individual regression coefficients, while the coefficient of determination (R^2) is used to measure the explanatory power of the regression model (Ghozali, 2018).

The overall research framework illustrates the logical flow of this study, starting from problem identification, hypothesis development, data collection, sample selection, variable measurement, classical assumption testing, regression and moderation analysis, and conclusion drawing. The conceptual framework depicts the direct relationships between CSR and leverage on financial performance, as well as the moderating role of firm size in these relationships. This framework provides a systematic overview of the research process and serves as the basis for empirical testing.

3. RESULTS AND DISCUSSION

3.1 Results of Analysis

3.1.1 Descriptive statistic

According to Ghozali (2018), descriptive statistical analysis is used to provide an overview or description of research data as reflected by measures such as the mean, standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness. This analysis helps researchers understand the general characteristics and distribution patterns of the data used in the study. The following table presents the results of the descriptive statistical analysis in this study.

Table 1. The result of descriptive statistic

Descriptive Statistics						
N	Minimum	Maximum	Mean	Std. Deviation	Skewness	

	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Csr (X1)	130	.60	1.00	.8831	.13591	-.741	.212
Leverage (X2)	130	-1.12	5.07	.6667	.85950	1.942	.212
Roa (Y)	130	-.19	.20	.0381	.07420	-.449	.212
Ukuran Perusahaan (Z)	130	10.55	18.65	14.4878	1.86051	-.116	.212
Valid N (listwise)	130						

Based on table 1, total of 130 observations were used for all variables. The descriptive statistics are as follows:

- Corporate Social Responsibility (CSR/X1) has a mean of 0.8831, indicating that companies generally have a high level of CSR. The values range from 0.60 to 1.00, with a low standard deviation of 0.13591, suggesting relatively uniform CSR levels. The skewness of -0.741 indicates a left-skewed distribution, meaning most companies have high CSR scores.
- Leverage (X2) has a mean of 0.6667, showing moderate use of debt. The range is from -1.12 to 5.07 with a standard deviation of 0.85950, indicating moderate variability. Skewness of 1.942 shows a right-skewed distribution, with most companies having lower leverage.
- Return on Assets (ROA/Y) has a mean of 0.0381, indicating generally low to moderate financial performance. Values range from -0.19 to 0.20 with a standard deviation of 0.07420. The skewness of -0.449 shows a slightly left-skewed distribution.
- Firm Size (Z) has a mean of 14.4878, representing medium to large companies. Values range from 10.55 to 18.65 with a standard deviation of 1.86051. Skewness of -0.116 indicates a nearly symmetrical distribution.

3.1.2 Normality test

The normality test is a statistical procedure employed to determine whether the research data are normally distributed. In this study, data normality is examined using the Kolmogorov–Smirnov test. According to Ghozali (2018), the data are considered normally distributed if the significance value exceeds 0.05. The following table shows the results of the Kolmogorov–Smirnov normality test conducted in this study.

Table 2. The result of normality test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		130
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.05657884
Most Extreme Differences	Absolute	.050
	Positive	.050
	Negative	-.045
Test Statistic		.050
Asymp. Sig. (2-tailed)		.200 ^{c,d}

The normality test using the Kolmogorov–Smirnov method shows a significance value of 0.200. Since the significance value is greater than 0.05, it can be concluded that the data are normally distributed.

3.1.3 Multicollinearity Test

The multicollinearity test is conducted to identify correlations among independent variables in the regression model. According to Ghozali (2018), multicollinearity does not occur if the tolerance value is greater than 0.10 and the variance inflation factor (VIF) is less than 10.00. The following table presents the results of the multicollinearity test for the regression model.

Table 3. The result of multicollinearity Test

Model	Coefficients ^a	
	Collinearity Statistics Tolerance	VIF
1 (Constant)		
Csr (X1)	.948	1.055
Leverage (X2)	.918	1.089
Ukuran Perusahaan (Z)	.964	1.037

The multicollinearity test results indicate that all independent variables have tolerance values greater than 0.10 and Variance Inflation Factor (VIF) values below 10. Specifically, CSR (Tolerance = 0.948; VIF = 1.055), leverage (Tolerance = 0.918; VIF = 1.089), and firm size (Tolerance = 0.964; VIF = 1.037). These results suggest that there is no multicollinearity among the variables, indicating that the regression model meets the multicollinearity assumption.

3.1.4 Autocorrelation test

The autocorrelation test is used to determine whether there is a correlation between residuals in period t and those in the previous period (t-1). According to Ghozali (2018), a regression model is free from autocorrelation if the Durbin-Watson (DW) value lies between du and (4 - du). The following table presents the results of the Durbin-Watson autocorrelation test.

Table 4. The result of autocorrelation test

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.647 ^a	.419	.405	.05725	1.782	

The Durbin-Watson test produces a value of 1.782. With three independent variables and 130 observations, the upper bound value (dU) is 1.7610. Since the Durbin-Watson statistic lies between dU (1.7610) and 4 - dU (2.2390), it can be concluded that there is no autocorrelation in the regression model.

3.1.5 Heteroscedasticity test

The heteroscedasticity test is used to examine whether there is inequality in the variance of the residuals in the regression model. According to Ghozali (2018), heteroscedasticity does not occur if the points in the scatterplot are randomly distributed and do not form a specific pattern, either above or below the zero line. The following table displays the results of the heteroscedasticity test in this study.

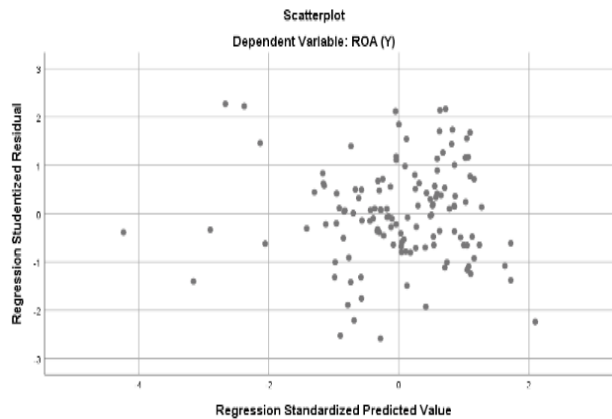


Figure 2. The result of heteroscedasticity test

The heteroskedasticity test based on the scatterplot shows that the residuals are randomly scattered around zero and do not form a specific pattern. Therefore, it can be concluded that the regression model does not exhibit heteroskedasticity and fulfills the homoscedasticity assumption.

3.1.6 Multiple regression analysis

Multiple linear regression analysis is used to examine the effect of two or more independent variables on a dependent variable. According to Ghozali (2018), this analysis is applied to determine the direction and magnitude of the relationship between independent variables and the dependent variable. The following table presents the results of the multiple linear regression analysis.

Table 5. The result of Multiple regression analysis

Model		Coefficients ^a		t	Sig.
		Unstandardized Coefficients B	Standardized Coefficients Beta		
1	(Constant)	-.125	.053	-2.349	.020
	Csr (X1)	-.043	.038	-.078	.264
	Leverage (X2)	-.051	.006	-.596	.000
	Ukuran Perusahaan (Z)	.016	.003	.407	.000

Based on Table 5, the linear regression equation in this study can be expressed as follows:

$$Y = -0.125 - 0.043X_1 - 0.051X_2 + 0.016X_3 + \epsilon$$

From the regression equation above, the interpretation can be explained as follows:

- a. The constant value of -0.125 indicates that when all independent variables, namely Corporate Social Responsibility (CSR), leverage, and firm size, are equal to zero, the financial performance (ROA) is estimated to be -0.125. This

value represents the baseline level of financial performance in the absence of the influence of the independent variables.

- b. The coefficient of Corporate Social Responsibility (CSR) is -0.043 , indicating that a one-unit increase in CSR is associated with a decrease in financial performance (ROA) by 0.043 , assuming other variables remain constant. This suggests that CSR has a negative relationship with financial performance.
- c. The coefficient of leverage is -0.051 , indicating that a one-unit increase in leverage leads to a decrease in financial performance (ROA) by 0.051 , ceteris paribus. This implies that higher leverage tends to reduce the firm's financial performance.
- d. The coefficient of firm size is 0.016 , indicating that a one-unit increase in firm size increases financial performance (ROA) by 0.016 , assuming other variables are held constant. This suggests that larger firms tend to exhibit better financial performance.

3.1.7 Hypothesis testing (T-Test)

The t-test is used to examine the effect of each independent variable individually on the dependent variable. According to Ghozali (2018), an independent variable is considered to have a significant effect if the significance value is less than 0.05 . Based on Table 5, the results of the partial hypothesis test are as follows:

- a. The t-test results indicate that Corporate Social Responsibility (CSR) has a negative and statistically insignificant effect on financial performance, proxied by Return on Assets (ROA). This is evidenced by a t-value of -1.121 with a significance value of $0.264 > 0.05$. These findings suggest that CSR does not have a significant effect on financial performance. Therefore, Hypothesis 1 (H1) is rejected, indicating that CSR does not significantly affect financial performance.
- b. The t-test results indicate that leverage has a negative and statistically significant effect on financial performance, proxied by Return on Assets (ROA), as evidenced by a t-value of -8.404 with a significance value of $0.00 < 0.05$. These findings indicate that higher leverage significantly reduces financial performance. Therefore, Hypothesis 2 (H2) is accepted, confirming that leverage has a significant effect on financial performance.

3.1.8 Moderated regression analysis (MRA)

Moderated Regression Analysis (MRA) is used to examine whether a moderating variable influences the strength or direction of the relationship between independent and dependent variables. According to Ghozali (2018), moderation occurs if the interaction term between the independent variable and the moderating variable has a significance value of less than 0.05 . The following table presents the results of the moderating regression analysis (MRA):

Table 6. The result of Moderated regression analysis (MRA)

Model		Coefficients ^a			T	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.730	.313		2.333	.021
	Csr (X1)	-.938	.333	-1.719	-2.814	.006
	Leverage (X2)	-.115	.067	-1.336	-1.712	.089
	Ukuran Perusahaan (Z)	-.042	.021	-1.043	-1.981	.050
	Interaksi X1_Z	.060	.022	2.094	2.709	.008
	Interaksi X2_Z	.004	.005	.768	.967	.335

Based on Table 6, Moderated regression analysis (MRA) in this study can be interpreted as follows:

- a. The interaction between Corporate Social Responsibility (CSR) and firm size has a positive and statistically significant effect on financial performance, as indicated by a significance value of $0.008 < 0.05$ and a t-value 2.709 . This result suggests that firm size significantly strengthens the relationship between CSR and financial performance. Therefore, Hypothesis 3 (H3) is accepted, indicating that firm size moderates the relationship between CSR and financial performance.
- b. The interaction between leverage and firm size has a statistically insignificant effect on financial performance, as indicated by a significance value of $0.335 > 0.05$ and a t-value of 0.967 . This finding indicates that firm size does not moderate the relationship between leverage and financial performance; therefore, Hypothesis 4 (H4) is rejected.

3.1.9 Coefficient of determination

The coefficient of determination (Adjusted R²) is used to measure the extent to which variations in the dependent variable can be explained by the independent variables in the regression model. According to Ghozali (2018), a higher Adjusted R² value indicates a greater explanatory power of the model, while the remaining variation is explained by variables outside the model.

Based on table 4, adjusted R-squared value of 0.405 indicates that approximately 40.5% of the variation in Financial Performance (Y) can be explained by the independent variables, Corporate Social Responsibility (CSR) and Leverage (X), along with the moderating effect of Firm Size. The remaining 59.5% of the variation in Financial

Performance is influenced by other factors not included in this model. This value suggests that the model has a moderate explanatory power, which is considered acceptable in social and management research, where many factors can affect the outcome variable beyond those included in the study.

3.2 Discussion

3.2.1 The Effect of Corporate Social Responsibility on Financial Performance

The t-test results indicate that Corporate Social Responsibility (CSR) has a negative but not statistically significant effect on financial performance, as indicated by a t-value of -1.121 and a significance value of $0.264 > 0.05$. This suggests that CSR does not significantly influence financial performance in the sampled companies, therefore, Hypothesis 1 (H1) is rejected.

CSR represents a company's moral responsibility to maximize positive impacts while minimizing negative effects on the surrounding community, covering various aspects such as environmental sustainability, interaction with local communities, decent working conditions, and charitable contributions (Hadi, 2011). Based on stakeholder theory, CSR is expected to influence financial performance because its implementation demonstrates the company's fulfillment of responsibilities to stakeholders, thereby earning trust, legitimacy, and support necessary to maintain smooth operations. Such support can enhance reputation, strengthen relationships with consumers and investors, and reduce social and regulatory risks, ultimately contributing directly to improved financial performance. However, this study found a negative and non-significant effect, which may be due to CSR programs being more socially and environmentally oriented and not directly impacting profitability, the relatively high costs of CSR activities compared to short-term financial benefits, and stakeholder awareness or appreciation that has not yet fully materialized to generate measurable support. These findings are consistent with the results of Wardhani (2021) and Ariadi & Ardiani (2024), which also reported that CSR does not always have a significant positive effect on financial performance, indicating that the impact of CSR may vary depending on company context, implementation strategies, and sector-specific conditions.

3.2.2 The Effect of Leverage on Financial Performance

The t-test results indicate that leverage has a negative and statistically significant effect on financial performance, as indicated by a t-value of -8.404 and a significance value of $0.00 < 0.05$. This suggests that leverage significantly influences financial performance in the sampled companies, therefore, Hypothesis 2 (H2) is supported.

Leverage is a way for a company to measure its ability to obtain financing through debt, which can have a significant impact on the company's financial condition (Kasmir, 2016). Leverage affects financial performance, where the use of debt can support the expansion of operational activities. However, if the level of leverage is too high, it can reduce profitability due to increased interest expenses and the risk of default (Arhinful & Radmehr, 2023). In their analysis of the impact of leverage on financial performance, Arhinful & Radmehr (2023) explain that from a stakeholder theory perspective, balanced leverage management can build trust and support from stakeholders, thereby improving financial performance through reduced capital costs and increased access to resources, provided that risks are managed effectively to prevent conflicts of interest. The results of this study are in line with research (Amartiya & Minan, 2022; Dewi et al., 2021) stating that leverage has a significant effect on financial performance.

3.2.3 Moderating Effect of Firm Size on the Relationship between CSR and Financial Performance

The MRA-test results indicate that the interaction between Corporate Social Responsibility (CSR) and firm size has a positive and statistically significant effect on financial performance, as indicated by a significance value of $0.008 < 0.05$ and a t-value of 2.709 . This suggests that firm size significantly strengthens the relationship between CSR and financial performance, therefore, Hypothesis 3 (H3) is accepted, indicating that firm size moderates the relationship between CSR and financial performance.

Company size is a measurement that can classify companies into large and small companies based on their total assets, stock market value, average rate, and sales volume (Brigham & Houston, 2021). Company size affects the implementation of corporate social responsibility because the larger the company, the easier it is for them to obtain funds that can be used by management to improve corporate social responsibility. Hartanto & Susilowati (2024) in their research results show that Corporate Social Responsibility has a significant positive effect on Return on Assets (ROA). Based on stakeholder theory, companies are obliged to meet the expectations of stakeholders through the implementation and disclosure of social responsibility as a form of legitimacy for their operations. Company size acts as a moderating variable in the relationship between Corporate Social Responsibility (CSR) and financial performance, because larger companies face stronger stakeholder demands and have more adequate resources to implement CSR programs optimally. This is in line with the research by Dewi et al. (2021), which states that company size can moderate Corporate Social Responsibility (CSR) towards financial performance.

3.2.4 Moderating Effect of Firm Size on the Relationship between Leverage and Financial Performance

The MRA test results indicate that the interaction between leverage and firm size has a statistically insignificant effect on financial performance, as indicated by a significance value of $0.335 > 0.05$ and a t-value of 0.967 . This suggests that firm size does not moderate the relationship between leverage and financial performance; therefore, Hypothesis 4 (H4) is rejected.

Firm size is generally considered to influence leverage, where leverage ratios tend to be higher in companies with a larger operational scale (Ariadi & Ardiani, 2024). The amount of capital that an entity can obtain varies depending on its size, and firm size is usually measured based on total assets. This can affect creditor confidence in providing loans, so with a larger capital turnover, companies are expected to achieve higher profitability (Ariadi & Ardiani, 2024). According to stakeholder theory, companies have an obligation to maintain the trust of their stakeholders, including creditors, so the ability to utilize leverage is often assumed to be influenced by firm size. However, the results of this study differ from the existing theory. This discrepancy may be due to uniform debt management strategies, cautious internal company policies, or external factors such as economic conditions and regulations, resulting in firm size not having a significant moderating effect in the context of this research. These findings are consistent with the study by Amartiya & Minan (2022), which also found that firm size does not moderate the relationship between leverage and financial performance.

4. CONCLUSION

The results of this study indicate that Corporate Social Responsibility (CSR) has a negative but not significant effect on financial performance, which suggests that CSR activities carried out by the companies do not directly contribute to improving financial outcomes. This finding implies that although CSR reflects a company's commitment to ethical and social responsibilities, its impact on financial performance may be limited or indirect, depending on how these activities are implemented and perceived by stakeholders. In contrast, leverage has a negative and significant effect on financial performance, indicating that higher levels of debt can reduce a company's profitability and overall financial condition. Regarding the moderating role of firm size, this study finds that firm size significantly moderates the relationship between CSR and financial performance by weakening the negative effect of CSR, which means that larger companies are better able to manage CSR activities in a way that minimizes potential negative impacts on financial performance. However, firm size does not moderate the relationship between leverage and financial performance, suggesting that the negative effect of leverage remains consistent regardless of whether a company is large or small. Overall, these findings highlight the importance of managing both CSR and leverage effectively, taking into account company size for CSR initiatives, while recognizing that the impact of leverage on financial performance is generally independent of firm size.

ACKNOWLEDGMENT

Praise and thanks be to Almighty God for His grace and guidance in enabling the completion of this article. The author would like to express sincere gratitude to Mrs. Dra. Yuniep Mujati Suaidah, M.Si. (Rector/Supervisor), Mrs. Nur Anisah, SE., MSA., AK., CA. (Dean of FEB), Mr. Langgeng Prayitno, SE., MSA. (Head of Accounting Study Program), and to Mr. Kuswo and Mrs. Romlah (parents), as well as to Sister Vika, Khafid, and beloved niece Queenzy. The author also thanks all parties who have provided assistance during the research process. Constructive criticism and suggestions are highly appreciated for the improvement of this article.

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