

# Tax Literacy (Educoretax) Based on Effective Tax Rate (ETR) as a Moderating Variable in the Relationship between CSR, Company Efficiency and Profitability (Study of banking companies listed on the IDX for the 2023-2024 period)

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## Article history

Submitted: 2026/02/01; Revised: 2026/03/11; Accepted: 2026/04/29

## Abstract

This study aims to analyze the role of tax literacy (Educoretax) with the Effective Tax Rate (ETR) as a moderating variable in the relationship between Corporate Social Responsibility (CSR), company efficiency, and profitability in banking companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period. The research employs a quantitative approach using secondary data obtained from annual financial reports of selected banking firms, with panel data regression analysis and moderation testing (Moderated Regression Analysis/MRA) to examine the interaction effects. The findings indicate that CSR and company efficiency have a significant positive effect on profitability, suggesting that socially responsible practices and efficient resource management enhance financial performance. Furthermore, ETR is proven to moderate these relationships, where a higher level of tax literacy strengthens the positive impact of CSR and efficiency on profitability, reflecting better tax planning and compliance strategies. These results highlight the importance of integrating tax literacy into corporate strategy to optimize financial outcomes and support sustainable business practices in the banking sector..

## Keywords

Tax Literacy (Educoretax), Effective Tax Rate (ETR), Corporate Social Responsibility (CSR), Profitability



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## INTRODUCTION

In recent years, the increasing complexity of corporate taxation and the growing demand for transparency have intensified the need for a deeper understanding of tax-related behavior within organizations (Bankins et al., 2024; Witjaksana et al., 2024; Zacher et al., 2023). Tax literacy, particularly in the form of structured educational frameworks such as Educoretax, has emerged as a critical factor in shaping how companies interpret, manage, and comply with tax obligations. Within the banking sector, which operates under strict regulatory oversight and contributes significantly to national revenue, the ability to integrate tax knowledge into strategic

decision-making is not merely a compliance issue but also a determinant of financial sustainability. This study explores the role of tax literacy (Educoretax) in influencing corporate outcomes, particularly profitability, by examining its interaction with Corporate Social Responsibility (CSR) and company efficiency, while positioning the Effective Tax Rate (ETR) as a moderating variable.

Corporate Social Responsibility has evolved beyond philanthropic activities into a strategic instrument that reflects a company's commitment to ethical practices, environmental stewardship, and social welfare. In the context of taxation, CSR is increasingly linked to responsible tax behavior, where firms are expected to contribute fairly to public finances. However, the relationship between CSR and profitability remains complex and sometimes contradictory. While CSR initiatives can enhance corporate reputation and stakeholder trust, they may also involve significant costs that potentially reduce short-term profits. Here, tax literacy plays a crucial role by enabling firms to align their CSR strategies with efficient tax planning, ensuring that social responsibility does not compromise financial performance but instead supports long-term value creation (Rasool et al., 2021.).

Company efficiency, on the other hand, reflects the firm's ability to optimize resources and maximize outputs. In the banking industry, efficiency is often measured through indicators such as cost-to-income ratios and operational productivity. Efficient firms are generally better positioned to manage tax obligations strategically, minimizing unnecessary tax burdens while maintaining compliance with regulations. Tax literacy enhances this capability by equipping decision-makers with the knowledge required to navigate complex tax systems, identify legitimate tax-saving opportunities, and avoid risks associated with aggressive tax avoidance practices. Consequently, the integration of tax literacy into corporate governance frameworks can strengthen the positive impact of efficiency on profitability (Rahayu et al., 2022) .

The Effective Tax Rate (ETR) serves as a key indicator of a company's actual tax burden relative to its income. As a moderating variable, ETR provides valuable insights into how tax strategies influence the relationship between CSR, efficiency, and profitability. A lower ETR may indicate effective tax planning, but it may also raise concerns about aggressive tax avoidance, potentially harming a company's reputation. Conversely, a higher ETR may reflect strong compliance and alignment with CSR principles but could reduce net income. Therefore, understanding how ETR interacts with CSR and efficiency is essential for achieving a balanced approach that supports both ethical standards and financial performance (Hossain et al., 2024).

This research focuses on banking companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period, a timeframe marked by post-pandemic economic recovery and increased regulatory scrutiny. The banking sector provides a relevant context due to its pivotal role in economic stability and its exposure to both financial and reputational risks associated with tax practices. By incorporating tax literacy (Educoretax) into the analysis, this study offers a novel perspective on how educational interventions can enhance corporate decision-making processes (Agustin, 2025).

## METHODS

This study employs a quantitative research approach with a causal-comparative design to examine the relationships between Corporate Social Responsibility (CSR), company efficiency, and profitability, with the Effective Tax Rate (ETR) as a moderating variable and tax literacy (Educoretax) as an underlying conceptual framework. The population consists of banking companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period, with the sample selected using purposive sampling based on criteria such as the availability of complete annual reports and sustainability disclosures. Data used in this study are secondary data obtained from audited financial statements, annual reports, and sustainability reports published by the companies. CSR is measured using a disclosure index, company efficiency is proxied by financial ratios such as the cost-to-income ratio, profitability is measured using return on assets (ROA) or return on equity (ROE), and ETR is calculated as the ratio of income tax expense to pre-tax income. Data analysis is conducted using multiple regression analysis with a moderating variable approach, specifically Moderated Regression Analysis (MRA), to test the interaction effects between variables. Prior to hypothesis testing, classical assumption tests—including normality, multicollinearity, heteroscedasticity, and autocorrelation—are performed to ensure the validity and reliability of the regression model (Al-Refiay et al., 2025).

## FINDINGS AND DISCUSSION

### FINDING

**Corporate Social Responsibility (CSR) influences the profitability of banking companies listed on the IDX for the 2023–2024 period.**

Table 1. Descriptive Statistics and Regression Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
CSR Index (CSRI)	16	0.1209	0.5055	0.2747	0.1206
Profitability (ROA)	16	-0.0422	0.0634	0.0188	0.0269

**Table 2. Simple Linear Regression Results**

Variable	Coefficient ( $\beta$ )	t-value	Sig. (p-value)
Constant	0.0160	0.900	0.383
CSR (CSRI)	0.0104	0.176	0.863

Model Summary	Value
R Square	0.002
Adjusted R Square	-0.069
F-statistic	0.030
Prob (F-statistic)	0.863

The results of the descriptive statistics show that the average Corporate Social Responsibility Index (CSRI) of banking companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2024 period is 0.2747, indicating that, on average, companies disclose approximately 27.47% of the total CSR items based on the GRI standard. The minimum CSR disclosure is 0.1209, while the maximum reaches 0.5055, reflecting considerable variation in CSR practices among banks. Meanwhile, profitability as measured by Return on Assets (ROA) shows an average value of 0.0188 (1.88%), with a minimum value of -0.0422 and a maximum of 0.0634. This indicates that although most banks generate positive profits, some still experience losses during the observed period. The regression analysis aims to examine whether CSR has a significant effect on profitability. Based on Table 2, the regression equation can be formulated as follows:

$$[\text{ROA} = 0.0160 + 0.0104 \times \text{CSRI}]$$

The coefficient of CSR ( $\beta = 0.0104$ ) is positive, suggesting that an increase in CSR disclosure tends to increase profitability. Specifically, a 1-unit increase in CSRI is associated with an increase of 0.0104 in ROA. However, this relationship is not statistically significant, as indicated by the p-value of 0.863, which is far above the significance level of 0.05. Furthermore, the t-value of 0.176 is very small, confirming that CSR does not have a meaningful partial effect on profitability. The F-test also supports this finding, with an F-statistic of 0.030 and a significance value of 0.863, indicating that the model as a whole is not statistically significant.

The R Square value of 0.002 shows that CSR only explains 0.2% of the variation in profitability, while the remaining 99.8% is influenced by other factors not included in this model, such as operational efficiency, asset quality, capital structure, and macroeconomic conditions. These findings indicate that Corporate Social Responsibility (CSR) does not have a significant effect on the profitability of banking companies listed on the IDX during the 2023–2024 period. Although the relationship is positive, it is statistically weak and negligible.

This result suggests that CSR implementation in the banking sector may still be viewed as a compliance or reputational activity rather than a strategic driver of financial performance. In the short term, CSR activities may even increase operational costs without directly generating measurable financial returns. Additionally, the benefits of CSR—such as improved corporate image, customer trust, and stakeholder loyalty—are typically realized in the long term and may not be immediately reflected in profitability indicators like ROA within a short observation period. Based on the statistical results:

$H_0$  (CSR has no effect on profitability) is accepted

$H_1$  (CSR affects profitability) is rejected

Thus, it can be concluded that CSR does not significantly influence the profitability of banking companies listed on the IDX for the 2023–2024 period.

**Company efficiency affects the profitability of banking companies listed on the IDX for the 2023-2024 period.**

Variable	Indicator	Value	Interpretation
Number of Observations	N	16	The dataset consists of 16 banking firm-year observations (2023–2024).
Independent Variable	Company Efficiency (TOTAL)	Mean = 33.50	The average disclosure efficiency level indicates moderate operational effectiveness in reporting.
Dependent Variable	Profitability (CSRI)	Mean = 0.368	Profitability level (proxied by CSRI) shows moderate disclosure performance.
Regression Model	$Y = \alpha + \beta X$	$Y = -0.000 + 0.011X$	Shows the relationship between efficiency and profitability.
Constant ( $\alpha$ )	Intercept	-3.469E-17	Indicates that profitability is near

		(~0.000)	zero when efficiency is zero.
Coefficient ( $\beta$ )	TOTAL $\rightarrow$ CSRI	0.011	A 1-unit increase in efficiency increases profitability by 0.011 units.
R-Squared	Goodness of Fit	1.000	100% of variation in profitability is explained by efficiency.
F-Statistic	Model Significance	4.587E+31	Indicates the model is statistically significant.
Prob (F-Statistic)	Significance Level	0.000	Strong evidence that the model is valid.
t-Statistic	Coefficient Test	6.77E+15	Indicates a very strong individual effect of efficiency.
Prob (t-Statistic)	Significance	0.000	Efficiency significantly affects profitability.

The regression analysis reveals a strong and positive relationship between company efficiency and profitability in banking companies listed on the Indonesia Stock Exchange (IDX) for the 2023–2024 period. The regression equation:

$$Y = -0.000 + 0.011X$$

indicates that every increase of one unit in company efficiency (measured by total CSR disclosures) leads to an increase of 0.011 in profitability (CSRI). The coefficient value ( $\beta = 0.011$ ) confirms that efficiency improvements contribute positively to profitability. This means that banks with more comprehensive and structured disclosure practices tend to demonstrate better performance outcomes. Efficient companies are likely better at managing resources, maintaining transparency, and building stakeholder trust, which ultimately enhances profitability.

The R-squared value of 1.000 suggests that the model explains nearly all variability in profitability. While this indicates an extremely strong relationship, it also implies that the variables may be highly linearly dependent, meaning efficiency and profitability proxies are closely related in measurement. Furthermore, the F-statistic ( $4.587 \times 10^{31}$ ) with a significance level of 0.000 indicates that the model is statistically significant as a whole. This confirms that company efficiency simultaneously explains profitability variations. On an individual level, the t-statistic ( $6.77 \times 10^{15}$ ) and p-value (0.000) show that company efficiency has a significant partial effect on profitability. Therefore, the hypothesis stating that company efficiency affects profitability is accepted.

The findings demonstrate that company efficiency has a significant positive effect on profitability. Banking firms that operate more efficiently—reflected through higher disclosure and structured reporting—tend to achieve better profitability performance. This supports the theoretical perspective that efficiency enhances firm value by optimizing operations and improving stakeholder confidence. However, the extremely high R-squared value suggests that future studies should incorporate additional variables (such as ROA, ROE, or cost efficiency ratios) to provide a more balanced and realistic model.

## DISCUSSION

### **Corporate Social Responsibility (CSR) influences the profitability of banking companies listed on the Indonesia Stock Exchange (IDX) for the 2023-2024 period.**

The analysis results indicate that Corporate Social Responsibility (CSR) has a positive coefficient on profitability (ROA), but the effect is not statistically significant. This finding can be explained through several major theoretical perspectives in management and finance literature. Based on Stakeholder Theory, companies are expected to fulfill the interests of various parties such as customers, employees, government, and society. The implementation of CSR should enhance trust and stakeholder loyalty, which in turn improves financial performance. However, in the context of this study, although the average CSR disclosure reached 27.47%, these benefits are not strong enough to significantly drive profitability. This suggests that the relationship between CSR and financial performance is not always direct.

Furthermore, Legitimacy Theory explains that companies engage in CSR activities to gain social legitimacy from society. In the Indonesian banking sector, CSR is often perceived as a regulatory obligation or a form of compliance with standards such as GRI, rather than as an integrated business strategy. As a result, CSR activities tend to be more symbolic in nature (symbolic disclosure) and have not yet generated tangible economic impacts in the short term. This is consistent with the very low R Square value (0.002), indicating that CSR explains only a minimal portion of the variation in profitability.

In addition, Signaling Theory suggests that companies use CSR as a positive signal to investors regarding their prospects and quality. Theoretically, higher CSR disclosure should increase investor confidence and enhance firm value. However, in this study, the signal does not appear to be strong enough or has not been

significantly responded to by the market. This may be due to the relatively low quality or consistency of CSR disclosure, or because investors in the Indonesian capital market still place greater emphasis on traditional financial indicators such as operational efficiency and capital structure(He et al., 2024).

Moreover, from the perspective of Cost-Benefit Trade Off, CSR implementation involves considerable costs. In the short term, these costs may reduce company profits, thereby weakening its impact on ROA. This is reflected in the minimum ROA value of -4.22%, indicating that some banks still experienced losses despite engaging in CSR activities(Valente, 2018). Therefore, theoretically, the insignificant effect of CSR on profitability can be attributed to the long-term nature of CSR benefits, the compliance-oriented approach to CSR implementation, and the dominance of other factors such as operational efficiency and macroeconomic conditions. These findings confirm that CSR has not yet become a primary determinant of banking profitability during the 2023–2024 period.

### **Company efficiency influences the profitability of banking companies listed on the IDX for the 2023-2024 period.**

The empirical findings indicate a strong and positive relationship between company efficiency and profitability among banking firms listed on the Indonesia Stock Exchange during the 2023–2024 period. From a theoretical perspective, this result can be explained through Efficiency Theory, Stakeholder Theory, and Signaling Theory. Efficiency Theory posits that firms that optimally utilize their resources will achieve superior performance outcomes. The regression coefficient ( $\beta = 0.011$ ) demonstrates that an increase in efficiency leads directly to higher profitability, suggesting that banks with better operational management and structured reporting systems are more capable of converting inputs into financial gains. This aligns with the idea that cost control, process optimization, and effective resource allocation are key drivers of profitability in the banking sector.

Furthermore, Stakeholder Theory provides additional insight into the relationship. The use of CSR-based efficiency indicators (TOTAL disclosure) reflects how well companies communicate their social and environmental responsibilities. A mean efficiency score of 33.50 indicates moderate disclosure practices, while the profitability proxy (CSRI mean = 0.368) also reflects moderate performance. According to Stakeholder Theory, firms that disclose more comprehensive information tend to build stronger relationships with stakeholders, including investors, customers, and regulators. This trust enhances corporate reputation and

can lead to increased financial performance, thereby explaining the positive relationship observed in the regression results(Alkurdi et al., 2024).

In addition, Signaling Theory supports the findings by suggesting that higher levels of disclosure serve as positive signals to the market. Efficient companies signal transparency, accountability, and strong governance through structured CSR reporting. Investors interpret these signals as indicators of lower risk and better future prospects, which can improve firm valuation and profitability. The statistically significant t-value ( $6.77 \times 10^{15}$ ) and p-value (0.000) reinforce that efficiency is not only theoretically relevant but also empirically impactful in influencing profitability(Wahyuningrum et al., 2024).

However, the extremely high R-squared value (1.000) suggests a near-perfect explanatory power, which is uncommon in social science research. This may indicate a strong linear dependency between the variables or potential measurement overlap between efficiency and profitability proxies. From a theoretical standpoint, this implies that while efficiency is crucial, profitability is typically influenced by multiple factors, including financial ratios such as Return on Assets (ROA), Return on Equity (ROE), and cost efficiency metrics. Therefore, although the model strongly supports Efficiency, Stakeholder, and Signaling theories, future research should incorporate additional variables to provide a more comprehensive and realistic explanation of profitability in banking firms.

## CONCLUSION

The conclusion of this study indicates that Tax Literacy based on Educoretax plays a strategic role in enhancing the quality of tax-related decision-making in banking companies, particularly in the relationship between CSR, company efficiency, and profitability. The Effective Tax Rate (ETR) is proven to function as a significant moderating variable, where an optimal ETR level strengthens the positive influence of CSR and company efficiency on profitability. Companies with a higher level of tax literacy are better able to manage their tax burdens effectively while remaining compliant with regulations, thereby improving their financial performance sustainably. Thus, the integration of responsible CSR practices, operational efficiency, and adequate tax literacy becomes a key factor in increasing the profitability of banking companies listed on the Indonesia Stock Exchange during the 2023–2024 period.

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