

Research Article

Corporate Governance and Tax Avoidance: Moderating Effects of Institutional Ownership in Indonesia's Energy Sector

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Abstract

This study examines the effects of profitability, thin capitalization, and Corporate Social Responsibility (CSR) on tax avoidance, as well as the moderating role of institutional ownership in energy sector companies listed on the Indonesia Stock Exchange during 2021–2024. The energy sector was selected due to its capital-intensive nature, environmental impact, and high regulatory scrutiny regarding tax transparency. This study also addresses inconsistent findings in previous research concerning the determinants of tax avoidance and the effectiveness of institutional ownership as a governance mechanism. Using a quantitative associative approach, the research employed secondary data obtained from annual financial reports. Purposive sampling was used to select 30 companies, resulting in 120 firm-year observations. Data were analyzed using panel regression and moderation analysis in EViews. The results show that profitability has a significant negative effect on tax avoidance, indicating that more profitable firms tend to demonstrate greater tax compliance. Thin capitalization has a significant positive effect on tax avoidance, suggesting that debt financing encourages tax-minimization strategies through interest expense utilization. CSR reduces tax avoidance, while institutional ownership significantly moderates the relationships between profitability, thin capitalization, CSR, and tax avoidance by enhancing oversight and limiting opportunistic managerial behavior.

Keywords: Profitability, Thin Capitalization, Corporate Social Responsibility, Institutional Ownership, Tax Avoidance

JEL Classification: G32, G34, H26

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1. Introduction

Taxes are the primary source of state revenue and play an important role in financing public expenditures, infrastructure development, and national economic growth. Law Number 7 of 2021 defines taxes as mandatory contributions imposed by the state without direct compensation to taxpayers. In Indonesia, tax revenue accounts for the largest share of the State Budget (APBN), making tax optimization essential for maintaining fiscal sustainability and supporting national development.

Although the government has consistently achieved and exceeded tax revenue targets in recent years, Indonesia's tax ratio remains relatively low at around 10 percent compared to several ASEAN countries such as Malaysia, Singapore, and the Philippines, whose tax ratios exceed 13 percent. This condition indicates that the potential for tax revenue collection has not been fully optimized, partly due to tax avoidance practices in the corporate sector.

Tax avoidance refers to corporate efforts to minimize tax burdens legally by exploiting loopholes and weaknesses in tax regulations. Although tax avoidance is considered legal and part of tax planning, aggressive tax practices may reduce state revenue and weaken fiscal sustainability. The energy sector has become one of the industries most closely associated with tax avoidance due to its large-scale operations, capital-intensive nature, and complex financing structures. Cases involving PT Adaro Energy Tbk and findings from the Corruption Eradication Commission (KPK) regarding tax losses in the mining sector demonstrate that aggressive tax practices remain a significant concern in Indonesia's energy industry. In addition, energy companies are highly exposed to environmental and social issues, making corporate transparency and accountability increasingly important.

Several factors are considered to influence tax avoidance behavior, including profitability, thin capitalization, and corporate social responsibility (CSR). Profitability reflects a company's ability to generate profits and is often associated with higher tax burdens, thereby encouraging management to pursue tax-planning strategies. However, previous studies have produced inconsistent findings regarding the relationship between profitability and tax avoidance, with some studies showing positive effects while others indicate negative or insignificant relationships. Thin capitalization, which refers to financing through excessive debt relative to equity, also provides companies with opportunities to reduce taxable income through interest expense deductions. Nevertheless, empirical evidence regarding its effect on tax avoidance remains inconclusive (Anggraeni & Oktaviani, 2021).

Furthermore, CSR is often associated with corporate transparency, ethical responsibility, and regulatory compliance. Based on legitimacy and stakeholder theories, companies with stronger CSR commitments are expected to avoid aggressive tax strategies to maintain public trust and corporate reputation. However, empirical findings regarding the relationship between CSR and tax avoidance are also contradictory, with studies reporting both positive and negative effects (Lanis, 2015). These inconsistencies indicate that the determinants of tax avoidance remain inconclusive and require further empirical examination, particularly in industries subject to strong public scrutiny, such as the energy sector.

This study also highlights the role of institutional ownership as a moderating variable. Institutional ownership refers to the proportion of shares held by institutional investors, such as banks, insurance companies, investment firms, and government institutions. Based on agency theory, institutional investors possess stronger monitoring capabilities and may reduce opportunistic managerial behavior, including aggressive tax avoidance. However, previous studies yield contradictory findings because institutional investors may either encourage transparency and compliance or pressure management to maximize shareholder returns through tax-efficiency strategies (Khurana & Moser, 2009).

The inconsistencies across previous findings indicate a research gap regarding the effectiveness of institutional ownership in moderating the relationships among profitability, thin capitalization, CSR, and tax avoidance. Most previous studies have focused on manufacturing or other general non-financial sectors, while limited research has specifically examined the energy sector, which has unique operational, environmental, and regulatory characteristics. Therefore, this study aims to analyze the effect of profitability, thin capitalization, and CSR on tax avoidance, as well as the moderating role of institutional ownership in energy sector companies listed on the Indonesia Stock Exchange during 2021–2024. This study is expected to contribute to agency theory, stakeholder theory, and tax-governance literature by providing updated empirical evidence on governance monitoring and tax-avoidance behavior in Indonesia's energy sector.

2. Literature Review and Hypothesis

Agency Theory

Agency theory explains the contractual relationship between the principal, as the capital owner and the agent, as the management authorized to manage the company. The divergence of interests between the two creates the potential for agency conflict when management is more oriented towards increasing compensation and personal interests than creating long-term value for shareholders. Information asymmetry provides management with room to manipulate financial and reporting policies, including tax avoidance strategies, to maximize after-tax profits (Santosa, Rahayu, et al., 2022). In the context of taxation, this theory views tax avoidance as a rational consequence of the agent's opportunistic behavior that is not in line with the principal's interests. Therefore, a strong oversight mechanism through governance is needed to mitigate this conflict.

Tax avoidance

Tax avoidance is defined as a strategy to reduce the tax burden by legally exploiting loopholes in tax regulations without violating formal provisions. This practice arises from conflicting interests between business entities focused on increasing profits and the government, which aims to maximize state revenue (Santosa et al., 2023). Regulatory complexity, high tax rates, weak fiscal oversight, and the availability of tax incentives often encourage companies to engage in tax avoidance. Although legal, this practice is often viewed as detrimental to the state and opens up opportunities for opportunistic management behavior.

Thin capitalization

Thin capitalization is a corporate financing practice that relies more heavily on debt than equity. This structure provides a tax shield through deductions for interest expense on debt. If exploited aggressively, this practice is considered tax avoidance. Tax authorities in various countries impose debt-to-equity ratio restrictions to prevent companies from obtaining excessive tax benefits through high leverage. Companies with unbalanced debt structures are also at risk of financial distress and may face stricter oversight from tax authorities.

Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) is a company's responsibility to impact society and the environment, ensuring business sustainability positively. Companies that uphold social legitimacy tend to strive to project a compliant image, including in fulfilling tax obligations. High CSR disclosure is often associated with lower levels of tax avoidance, as companies focus on maintaining public trust and transparency in governance. In the energy sector, which is highly sensitive to environmental issues and regulatory compliance, CSR implementation is a crucial instrument in curbing aggressive tax practices (Santosa et al., 2022).

Profitability

Profitability is a measure of a company's ability to generate profits through the utilization of assets and equity. Highly profitable companies have a greater incentive to engage in aggressive tax planning to maximize net income. However, some argue that high profits actually encourage greater corporate compliance due to the heightened public scrutiny of corporate performance and taxes. This relationship demonstrates the dynamic dual effect of profitability, which can either strengthen or diminish tax avoidance practices depending on governance strategies and internal oversight (Albart et al., 2020).

Institutional ownership

Institutional ownership reflects the dominance of shareholders from professional institutions such as banks, investment firms, and other financial institutions. Institutional ownership acts as a monitoring mechanism that strengthens corporate governance, as institutional investors have a significant stake in ensuring company performance and compliance. However, the pressure to maximize returns can also encourage institutions to support more aggressive tax policies if they are perceived as profitable. Therefore, the presence of institutional investors significantly moderates the relationship between corporate variables and tax avoidance (Ardiyanto & Marfiana, 2021; Mita Dewi, 2019).

Research Conceptual Framework

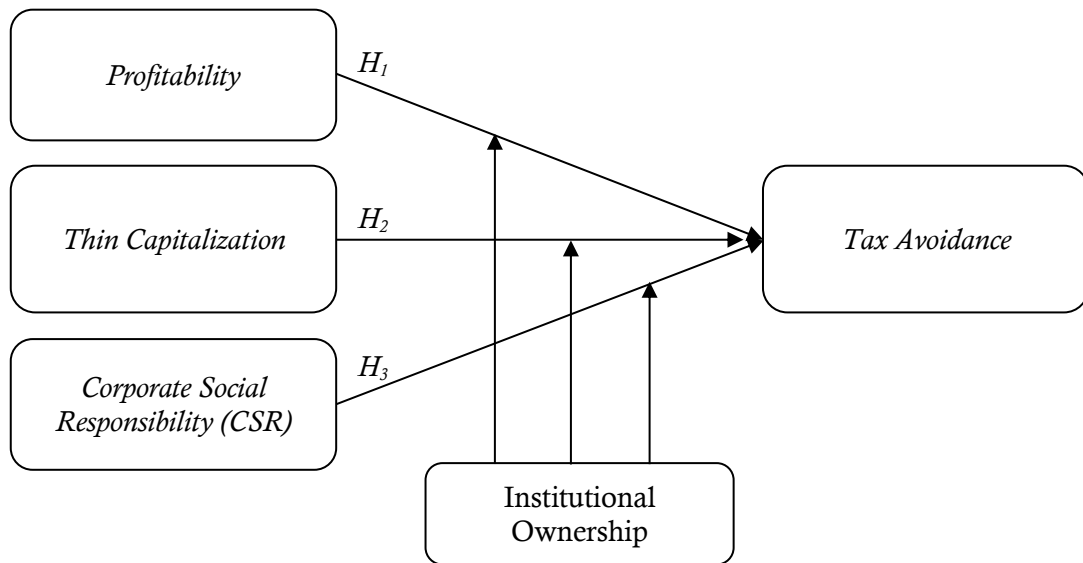


Figure 1. Research Concept Framework

Research Hypothesis

The Influence of Profitability on Tax Avoidance

Profitability reflects a company's ability to generate profits through effective operational and financial management. From the perspective of agency theory, high profitability may increase pressure on management to maintain earnings growth and maximize shareholder returns. As a result, managers may be motivated to implement tax-efficiency strategies, including tax avoidance, to reduce tax expenses and increase after-tax profits. Higher profits also lead to higher tax burdens, thereby creating stronger incentives for management to minimize corporate tax payments.

However, highly profitable companies are also more exposed to public scrutiny, regulatory monitoring, and reputational risks. Companies with strong financial performance may avoid aggressive tax strategies to maintain investor confidence, legitimacy, and long-term sustainability. This explains why previous studies provide inconsistent findings regarding the relationship between profitability and tax avoidance. Some studies found that profitability increases tax avoidance, while others found that profitable firms tend to be more compliant with tax regulations (Dwiyanti & Jati, 2019). Based on these arguments, the following hypothesis is proposed:

H1: Profitability affects Tax Avoidance

The Effect of Thin Capitalization on Tax Avoidance

Thin capitalization refers to the use of excessive debt financing relative to equity in a company's capital structure. Debt financing creates tax advantages because interest expenses can be deducted from taxable income, thereby reducing corporate tax obligations. According to agency theory, management may strategically use debt to maximize company value and improve short-term financial performance through tax savings. Consequently, companies with high debt levels may have stronger incentives to engage in aggressive tax planning.

In the energy sector, thin capitalization is particularly relevant because energy companies generally require substantial financing for capital-intensive operations and long-term projects. This condition increases opportunities for companies to exploit debt-related tax benefits. Nevertheless, excessive debt use may also increase financial risk and attract closer regulatory scrutiny, potentially limiting aggressive tax avoidance. Previous studies have yielded mixed results on the effect of thin capitalization on tax avoidance (Hermi & Petrawati, 2023; Anggraeni & Oktaviani, 2021). Therefore, the following hypothesis is proposed:

H2: Thin Capitalization affects Tax Avoidance.

The Influence of Corporate Social Responsibility on Tax Avoidance

Corporate Social Responsibility (CSR) reflects a company's commitment to ethical business practices, environmental sustainability, and social accountability. Based on legitimacy theory and stakeholder theory, companies with strong CSR engagement are expected to maintain positive relationships with stakeholders and preserve corporate legitimacy. Therefore, companies that actively disclose their CSR activities tend to avoid aggressive tax strategies, as tax compliance is considered part of social responsibility and ethical corporate behavior.

In contrast, some companies may strategically use CSR disclosures to enhance their reputations while simultaneously engaging in tax avoidance practices. This indicates that CSR may function either as a genuine ethical commitment or as a legitimacy tool to divert public attention from opportunistic corporate actions. Such differences explain the inconsistent findings in previous studies regarding CSR and tax avoidance. Based on these arguments, the following hypothesis is proposed:

H3: Corporate Social Responsibility affects Tax Avoidance.

Institutional Ownership Moderates the Effect of Profitability on Tax Avoidance. Institutional ownership refers to share ownership by institutional investors, such as banks, insurance companies, investment firms, and pension funds. Institutional investors generally possess stronger monitoring capabilities, greater access to information, and longer-term investment horizons than individual shareholders. In agency theory, institutional ownership functions as a governance mechanism that reduces opportunistic managerial behavior.

In profitable companies, managers may face stronger incentives to minimize taxes in order to maintain high earnings performance. However, institutional investors tend to prioritize long-term sustainability and corporate reputation rather than short-term profit maximization. As a result, stronger institutional ownership may weaken the tendency of highly profitable companies to engage in aggressive tax avoidance by increasing managerial monitoring and governance discipline. Support this moderating role. Therefore, the following hypothesis is proposed:

H4: Institutional Ownership can moderate the effect of Profitability on Tax Avoidance.

Institutional Ownership Moderates the Effect of Thin Capitalization on Tax Avoidance

Institutional ownership may also influence the relationship between thin capitalization and tax avoidance. Managers may use high-debt financing to obtain tax benefits through interest expense deductions. However, institutional investors generally have incentives to reduce excessive financial risk and maintain corporate sustainability. Therefore, institutional shareholders are expected to monitor financing decisions more carefully and discourage aggressive debt-based tax strategies.

In the energy sector, where companies often rely on large-scale debt financing, institutional oversight is particularly important to ensure that debt policies are implemented for operational efficiency rather than solely for tax avoidance. Institutional ownership may therefore weaken the positive relationship between thin capitalization and tax avoidance by strengthening governance oversight and financial discipline. Previous studies by Cahyani et al. (2021) support this argument. Thus, the following hypothesis is proposed:

H5: Institutional ownership can moderate the effect of thin capitalization on tax avoidance

Institutional Ownership Moderates the Effect of Corporate Social Responsibility (CSR) on Tax Avoidance

The relationship between CSR and tax avoidance may also depend on the strength of institutional monitoring. Companies with strong CSR commitments are expected to behave more ethically and transparently, including in their fulfillment of tax obligations. However, without effective oversight, CSR activities may merely serve as symbolic legitimacy strategies that do not necessarily reflect responsible taxation behavior.

Institutional investors can enhance the effectiveness of CSR by encouraging management to align sustainability commitments with transparent, compliant tax practices. Institutional shareholders generally emphasize long-term corporate value, stakeholder trust, and reputational sustainability, thereby reducing managers' incentives to engage in aggressive tax avoidance while simultaneously promoting CSR activities. Therefore, institutional ownership is expected to strengthen the negative relationship between CSR and tax avoidance. Previous studies by Tandean & Winnie (2016), and Alkurdi & Mardini (2020) support this perspective. Accordingly, the following hypothesis is proposed:

H6: Institutional ownership moderates corporate social responsibility towards tax avoidance.

3. Data and Method

Research Strategy

This study employs a quantitative research method using an associative approach to analyze the effects of profitability, thin capitalization, and Corporate Social Responsibility (CSR) on tax avoidance, as well as the moderating role of institutional ownership. Quantitative research is appropriate because this study uses numerical data derived from company financial statements and applies statistical analysis to test the proposed hypotheses. The associative approach aims to examine causal relationships between independent, dependent, and moderating variables.

This study uses panel data regression analysis because it combines cross-sectional data from multiple companies and time-series data over several years, enabling more comprehensive and efficient analysis. The 2021–2024 observation period was selected to provide recent empirical evidence on corporate tax behavior during the post-pandemic economic recovery, when companies faced increasing financial pressure and sustainability demands. The energy sector was specifically chosen because it is highly capital-intensive, closely linked to environmental and social issues, and subject to extensive regulatory scrutiny regarding tax transparency and corporate sustainability.

Population and Sample

The population of this study comprises energy sector companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024. This study used a purposive sampling method, in which researchers set specific criteria for selecting samples. Using the purposive sampling technique based on the aforementioned criteria, 30 energy sector companies were selected, with an observation period of 2021–2024 (4 years). Therefore, the total number of companies in the sample is 120.

Data and Data Collection Methods

This study uses secondary data from the annual financial reports of energy sector companies listed on the Indonesia Stock Exchange for the period 2020–2024, accessed through the official BEI website (www.idx.co.id).

Secondary data, according to Sugiyono (2013), are data obtained from indirect sources, such as documents or archives. Data collection techniques are carried out through documentation studies, as explained by Sugiyono (2013), who states that documentation techniques are a strategic step in research because they ensure the availability of relevant and objective information. The financial reports obtained are then used to calculate and analyze research variables, enabling the data to describe the company's actual condition during the observation period.

The moderating variable is institutional ownership, measured by the percentage of company shares owned by institutional investors relative to total outstanding shares. Institutional ownership is used as a moderating variable because institutional investors are considered capable of strengthening governance oversight and influencing managerial decisions related to tax policies.

Moderation testing was conducted using interaction terms between institutional ownership and each independent variable in the panel regression model. This approach enables the study to assess whether institutional ownership strengthens or weakens the relationships among profitability, thin capitalization, CSR, and tax avoidance.

To ensure methodological rigor, this study also conducted panel-data model-selection tests, including the Chow, Hausman, and Lagrange Multiplier tests. The Random Effect Model (REM) was selected because the Hausman test indicated that random effects were more appropriate than fixed effects, suggesting that individual company effects were random and uncorrelated with the independent variables. REM was also considered more efficient because it allows estimation using both within-entity and between-entity variations.

Furthermore, robustness and classical assumption tests, including tests for multicollinearity, heteroscedasticity, and autocorrelation, were conducted to ensure the validity, consistency, and reliability of the regression results.

4. Results

Classical Assumptions

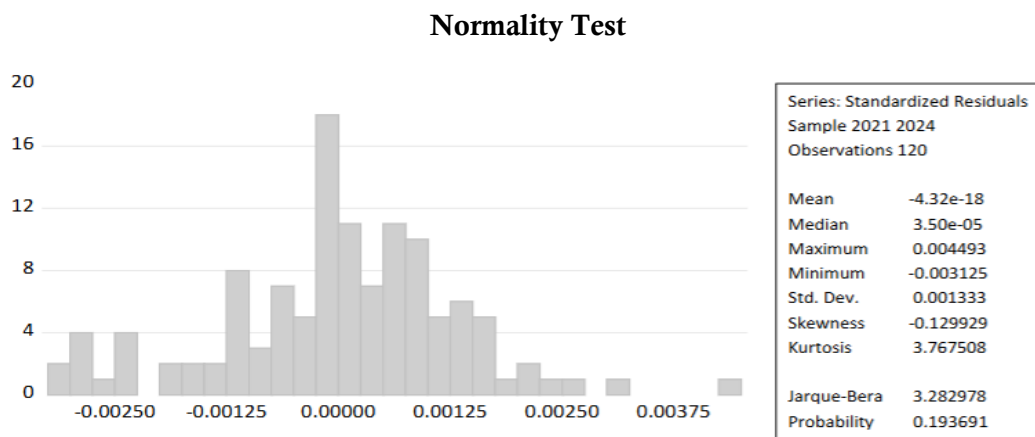


Figure 2. Normality Test

In the image above, we can see that the results of the normality test using the Jarque-Bera method yielded a p-value of 0.109561. Because the Jarque-Bera probability value is $> \alpha = 5\%$, the data are normally distributed.

Autocorrelation Test

Table 1. Autocorrelation Test Results

Keterangan	Nilai
Weighted Statistics	
R-squared	0.952946
Adjusted R-squared	0.950005
S.E. of regression	0.000934
F-statistic	324.0330
Prob(F-statistic)	0.000000
Mean dependent var	0.023025
S.D. dependent var	0.004176
Sum squared resid	9.76E-05
Durbin-Watson stat	1.574808
Unweighted Statistics	
R-squared	0.964255
Sum squared resid	0.000211
Mean dependent var	0.053880
Durbin-Watson stat	0.727351

Source: Processed Data (2025)

Based on Table 1 above, it can be concluded that the two research models did not experience autocorrelation events, where this result is indicated by the dw stat being between -2 and +2

Multicorrelation Test

Table2. Multicorrelation Test Results

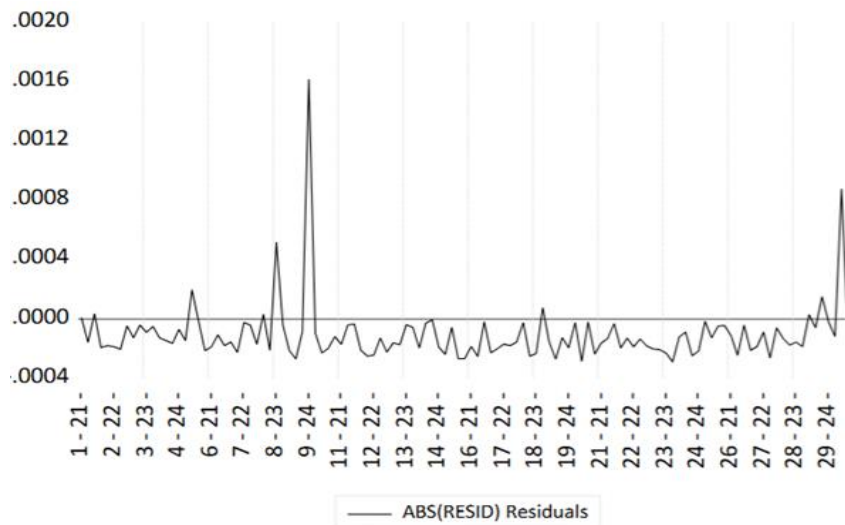
Variable	X1	X2	X3	Z	X1Z	X2Z	D(X3Z)
X1	1.000000	0.007090	-0.203332	-0.277737	0.415907	-0.218007	0.066742
X2	0.007090	1.000000	-0.009508	0.176836	0.073350	0.720877	0.063938
X3	-0.203332	-0.009508	1.000000	0.053627	-0.113635	0.000462	0.098272
Z	-0.277737	0.176836	0.053627	1.000000	0.683297	0.613774	0.308534
X1Z	0.415907	0.073350	-0.113635	0.683297	1.000000	0.310292	0.310265
X2Z	-0.218007	0.720877	0.000462	0.613774	0.310292	1.000000	0.174964
D(X3Z)	0.066742	0.063938	0.098272	0.308534	0.310265	0.174964	1.000000

Source: Processed Data (2025)

Based on the results of the multicollinearity test presented, there is no strong linear relationship among the independent variables in the multiple regression model. Hence, the risk of multicollinearity is minimal.

Heteroscedasticity Test

Table 3. Heteroscedasticity Test Results



Source: Processed Data (2025)

The residual graph shows that the data are stationary, indicating equal residual variances. Therefore, there is no heteroscedasticity in this model. This result is also supported by the Glejser test, which shows a significance level of the residual absid greater than 0.05, as shown below:

**Panel Data Regression Estimation Method
Common Effect Model (COM)**

Table 4. Panel Data Regression Results with the Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error
C	0.041235	0.000872	47.26827	0.0000	C	0.041235	0.000872
X1	0.058518	0.001639	35.70610	0.0000	X1	0.058518	0.001639

X2	0.000515	0.000138	3.726523	0.0003	X2	0.000515	0.000138
X3	-0.031746	0.001304	-24.34475	0.0000	X3	-0.031746	0.001304
Z	0.024041	0.002149	11.18719	0.0000	Z	0.024041	0.002149
X1Z	-0.107870	0.003730	-28.92110	0.0000	X1Z	-0.107870	0.003730
X2Z	-0.002217	0.000394	-5.623180	0.0000	X2Z	-0.002217	0.000394
X3Z	0.065996	0.003523	18.73451	0.0000	X3Z	0.065996	0.003523

Source: Processed Data (2025)

Based on the panel least squares test, profitability has a significant negative effect on tax avoidance ($p < 0.05$), while thin capitalization has a significant positive effect. CSR has a significant negative effect, reducing the tendency toward tax avoidance. Institutional ownership has a significant positive effect on tax avoidance. Moderating variables indicate that institutional ownership weakens the effect of profitability and thin capitalization on tax avoidance, but also weakens the negative effect of CSR, so that companies with high CSR are still encouraged to implement tax efficiency.

Fixed Effect Model (FEM)

Table 5. Panel Data Regression Results with Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error
C	0.042788	0.001268	33.75095	0.0000	C	0.042788	0.001268
X1	0.054466	0.001977	27.55152	0.0000	X1	0.054466	0.001977
X2	0.000665	0.000150	4.426616	0.0000	X2	0.000665	0.000150
X3	-0.031561	0.002537	-12.44043	0.0000	X3	-0.031561	0.002537
Z	0.020319	0.002493	8.150292	0.0000	Z	0.020319	0.002493
X1Z	-0.102292	0.005280	-19.37419	0.0000	X1Z	-0.102292	0.005280
X2Z	-0.002999	0.000709	-4.233281	0.0001	X2Z	-0.002999	0.000709
X3Z	0.069288	0.005902	11.73925	0.0000	X3Z	0.069288	0.005902

Source: Processed Data (2025)

FEM results show that profitability and thin capitalization have a significant positive effect on tax avoidance, while CSR has a significant negative effect. Institutional ownership weakens the effect of profitability and thin capitalization on tax avoidance, but strengthens the effect of CSR in promoting tax efficiency.

Random Effect Model (REM)

Table 6. Panel Data Regression Results with Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.042419	0.000946	44.84450	0.0000
X1	0.055821	0.001663	33.57515	0.0000
X2	0.000543	0.000118	4.603339	0.0000
X3	-0.032057	0.001596	-20.08664	0.0000
Z	0.021458	0.002060	10.41517	0.0000
X1Z	-0.103616	0.004081	-25.38721	0.0000
X2Z	-0.002398	0.000463	-5.178966	0.0000
X3Z	0.068043	0.003946	17.24233	0.0000

Source: Processed Data (2025)

The REM test results show that profitability and thin capitalization have a significant positive effect on tax avoidance, while CSR has a significant negative effect. Institutional ownership weakens the effects of profitability and thin capitalization on tax avoidance, but strengthens the effect of CSR, allowing CSR practices to be accompanied by tax-efficiency strategies.

Panel Data Regression Model Selection Test Chow Test

Table 7. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross s=Section F	5.398377	(29,83)	0.0000
Cross-section Chi-Square	127.192050	29	0.0000

Source: Processed Data (2025)

In Table 7 above, we can see that the results of the Chow test obtained a chi-square cross-section probability value of 0.000. Because the chi-square cross-section probability value $< \alpha = 5\%$, then the model chosen to be used is the Fixed Effect Model. Because the Fixed Effect Model is used for the Chow test, further testing is needed to determine whether the Fixed Effect Model or the Random Effect Model is appropriate.

Hausman test

Table 8. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq d.f.	Prob.
Cross-sectional random	10.435739	7	0.1652

Source: Processed Data (2025)

Based on Table 8, the Hausman test yields a random-effects probability value of 0.1652. This is because the random cross-section probability value is $> \alpha = 5\%$, so the model to use is the Random Effect Model.

Multiple Linear Regression Analysis

Table 9. Panel Data Regression Results with Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.042419	0.000946	44.84450	0.0000
X	0.055821	0.001663	33.57515	0.0000
X2	0.000543	0.000118	4.603339	0.0000
X3	-0.032057	0.001596	-20.08664	0.0000
Z	0.021458	0.002060	-20.08664	0.0000
X1Z	-0.103616	0.004081	10.41517	0.0000
X2Z	-0.002398	0.000463	-25.38721	0.0000
X3Z	0.0680043	0.003946	17.24233	0.0000

Source: Processed Data (2025)

The regression results show that profitability and thin capitalization positively affect tax avoidance, whereas CSR negatively affects it. The constant of 0.042419 reflects the level of tax avoidance when all variables are zero. Institutional ownership moderates each relationship, weakening the effect of profitability and thin capitalization on tax avoidance but strengthening the effect of CSR, so that the tendency for tax avoidance remains higher in companies with high institutional ownership.

Hypothesis Testing

Partial Test (t-Test) & Moderated Regression Analysis (MRA) Test

Table 10. Hypothesis Testing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.042419	0.000946	44.84450	0.0000
X	0.055821	0.001663	33.57515	0.0000
X2	0.000543	0.000118	4.603339	0.0000
X3	-0.032057	0.001596	-20.08664	0.0000
Z	0.021458	0.002060	-20.08664	0.0000
X1Z	-0.103616	0.004081	10.41517	0.0000
X2Z	-0.002398	0.000463	-25.38721	0.0000
X3Z	0.0680043	0.003946	17.24233	0.0000

Source: Processed Data (2025)

Based on the test results in Table 10 above, profitability, thin capitalization, and CSR are found to have a significant effect on tax avoidance, with p-values below 0.05. Profitability and thin capitalization positively affect tax avoidance, while CSR negatively affects it. Furthermore, institutional ownership has been shown to moderate all relationships between independent variables and tax avoidance. This moderation weakens the effect of profitability and thin capitalization, but strengthens the effect of CSR on tax avoidance. These results indicate that institutional oversight mechanisms play a crucial role in controlling and directing corporate tax avoidance strategies.

5. Discussion

The Influence of Profitability on Tax Avoidance

Based on Table 10, profitability has a negative and significant effect on tax avoidance. This finding indicates that highly profitable companies tend to be more compliant with tax regulations and less likely to engage in aggressive tax practices. From the perspective of agency theory, high profitability increases monitoring by shareholders, regulators, and external stakeholders, thereby limiting managerial opportunities to engage in opportunistic tax behavior. In addition, legitimacy theory and political cost theory suggest that profitable companies are more motivated to maintain their reputations, public trust, and long-term sustainability by complying with tax regulations.

In Indonesia's energy sector, profitable companies are subject to greater public scrutiny because the industry is closely associated with natural resource exploitation, environmental responsibility, and state revenue. As a result, companies with strong financial performance may avoid aggressive tax strategies to reduce reputational and political risks. This finding supports the findings of Lanis and Richardson (2011), Dwiyanti and Jati (2019). However, it contradicts Chen et al. (2010), who argued that higher profitability increases incentives for tax avoidance. These differences may arise because prior studies were largely conducted in manufacturing or non-resource sectors. In contrast, energy companies in Indonesia face stricter regulatory oversight and greater pressure on transparency and sustainability practices.

The Effect of Thin Capitalization on Tax Avoidance

The results show that thin capitalization has a positive and significant effect on tax avoidance. This indicates that companies that rely heavily on debt financing tend to use interest expenses to reduce taxable income. This finding is consistent with agency theory, which explains that managers may use debt strategically to minimize tax burdens and improve after-tax earnings. Trade-off theory also explains that companies seek the benefits of tax shields from debt financing despite the associated financial risks.

The result is particularly relevant to the energy sector, as energy companies generally require substantial capital and long-term financing for operational projects. Consequently, debt financing becomes an important funding source and simultaneously creates opportunities to reduce taxes

through deductible interest expenses. This finding supports the findings of Hermi and Petrawati (2023). However, it differs from Anggraeni and Oktaviani (2021), who found no significant effect. Sectoral differences and regulatory characteristics may cause the inconsistency. Compared to manufacturing firms, energy companies tend to have larger financing structures and more complex capital arrangements, making thin capitalization strategies more relevant for tax planning purposes.

The Influence of CSR on Tax Avoidance

The findings indicate that CSR negatively affects tax avoidance, meaning that companies with stronger CSR disclosure and implementation tend to avoid aggressive tax behavior. Based on legitimacy theory and stakeholder theory, CSR reflects a corporation's responsibility to society, the environment, and its stakeholders. Therefore, companies that prioritize sustainability and ethical responsibility are more likely to comply with tax regulations to maintain legitimacy and public trust.

Within Indonesia's energy sector, CSR plays a particularly important role because companies face significant environmental and social pressures from communities, regulators, and investors. Tax compliance may therefore be viewed as part of broader corporate responsibility and sustainability commitments. This finding is consistent with Lanis and Richardson (2012). However, it contradicts Hoi et al. (2013), who argued that CSR may only function symbolically and does not necessarily prevent tax aggressiveness. These contradictory findings suggest that CSR effectiveness depends on whether CSR is implemented substantively as part of ethical governance or merely used as a legitimacy tool to improve corporate image.

The Effect of Profitability on Tax Avoidance Disclosure Moderated by Institutional Ownership

The results show that institutional ownership strengthens the negative relationship between profitability and tax avoidance. This indicates that profitable companies with higher institutional ownership are less likely to engage in aggressive tax practices because institutional investors provide stronger monitoring over managerial decisions.

From the perspective of agency theory, institutional investors possess greater resources, expertise, and incentives to monitor management effectively. In the energy sector, institutional investors are generally more concerned with long-term sustainability, regulatory compliance, and reputational stability because tax-related controversies may negatively affect investment value and public trust. Therefore, institutional ownership strengthens governance quality by ensuring that high profitability is not exploited through opportunistic tax strategies.

This finding supports Desai and Dharmapala (2006). Who found that institutional ownership was not always effective in reducing tax avoidance. These differences may reflect variations in investor orientation across countries. In Indonesia, institutional investors in the energy sector tend to emphasize transparency and sustainability amid growing environmental, social, and governance (ESG) concerns.

The Effect of Thin Capitalization on Tax Avoidance Disclosure Moderated by Institutional Ownership

The findings show that institutional ownership weakens the positive association between thin capitalization and tax avoidance. This means that although debt financing creates opportunities for tax reduction, strong institutional monitoring can limit management's ability to exploit debt-based tax strategies excessively.

Institutional investors generally prioritize long-term financial stability and sustainable corporate performance. Excessive reliance on debt financing may increase financial risk and damage the company's reputation, particularly in the energy sector, where operational risks are already relatively high. Therefore, institutional investors tend to monitor financing policies more closely and discourage aggressive tax avoidance practices involving thin capitalization.

This finding supports the findings of Cahyani et al. (2021). However, it contradicts Richardson et al. (2013) and Chen et al. (2010), who argued that companies with high leverage tend to become more aggressive in tax avoidance. These contradictory findings may be influenced by differences in tax regulation enforcement, corporate governance quality, and investor characteristics between countries and industries. Indonesia's energy sector is increasingly monitored by regulators and investors, reducing opportunities for excessive debt-based tax avoidance strategies.

The Influence of Corporate Social Responsibility (CSR) on Tax Avoidance Disclosure moderated by institutional ownership

The results indicate that institutional ownership strengthens the relationship between CSR and tax avoidance. This finding suggests that companies with high CSR engagement and strong institutional ownership tend to manage tax strategies more carefully to maintain profitability, sustainability, and corporate reputation simultaneously.

This result reflects the complex relationship between CSR, governance, and taxation. Institutional investors may encourage companies to maintain strong CSR performance while simultaneously pursuing efficient tax management to preserve shareholder value. In some cases, CSR may serve not only as an ethical commitment but also as a strategic legitimacy mechanism, enabling companies to maintain a positive public image despite engaging in certain tax-planning activities.

The finding is consistent with Hoi et al. (2013), who argued that CSR can sometimes be used opportunistically to conceal aggressive tax behavior. However, it differs from Lanis and Richardson (2012), who found that CSR reduces tax aggressiveness. The inconsistency suggests that the moderating role of institutional ownership depends on investor orientation and governance objectives. In Indonesia's energy sector, institutional investors may simultaneously emphasize sustainability reporting and financial performance, thereby balancing reputational management and tax-efficiency strategies.

6. Conclusion

This study concludes that profitability and Corporate Social Responsibility (CSR) negatively affect tax avoidance. In contrast, thin capitalization positively affects tax avoidance in energy sector companies listed on the Indonesia Stock Exchange. These findings indicate that companies with strong financial performance and greater social responsibility tend to be more compliant with tax obligations. In contrast, companies that rely heavily on debt financing are more likely to engage in aggressive tax strategies by utilizing interest expense. Furthermore, institutional ownership is proven to strengthen the negative relationship between profitability and CSR on tax avoidance and weaken the positive effect of thin capitalization on tax avoidance. This demonstrates that institutional investors play an important role in monitoring and reducing opportunistic managerial behavior related to taxation.

Theoretically, this study contributes to agency theory, legitimacy theory, and the tax-governance literature by providing empirical evidence that governance mechanisms, particularly institutional ownership, are effective in shaping managerial decisions regarding tax compliance. The findings also emphasize that governance effectiveness is not only determined by internal corporate factors but also by external monitoring mechanisms that encourage transparency, accountability, and sustainable business practices. In addition, this study enriches empirical research on tax avoidance in Indonesia's energy sector, which has unique characteristics, including high capital intensity, environmental responsibility, and strong regulatory scrutiny.

From a managerial perspective, companies should strengthen governance quality by increasing institutional monitoring, improving funding structure policies, and enhancing the quality of CSR implementation and disclosure. Tax compliance should be integrated into corporate sustainability strategies to maintain legitimacy, investor confidence, and long-term business performance. Regulators are also encouraged to strengthen supervision of debt-based financing practices and improve governance-based tax compliance policies to support fiscal sustainability and corporate accountability within Indonesia's energy sector.

Recommendation

Energy sector companies are advised to strengthen governance by increasing institutional investors' role in monitoring managerial decisions, particularly those related to tax policies, debt financing, and corporate sustainability. Institutional investors should actively participate in evaluating tax compliance, financial transparency, and risk management to reduce aggressive tax avoidance practices. Companies are also encouraged to implement prudent debt policies and maintain balanced capital structures to prevent excessive reliance on debt-based tax benefits.

In addition, companies should improve the quality and transparency of CSR disclosures by integrating sustainability reporting with corporate tax responsibility and governance practices. CSR implementation should not only function as a reputational tool but also reflect genuine corporate accountability and compliance with taxation obligations.

For regulators, stricter supervision of thin capitalization practices is necessary, particularly within Indonesia's energy sector, which is highly capital-intensive and vulnerable to aggressive tax planning. The government is encouraged to strengthen debt-capitalization regulations, improve governance-based tax compliance monitoring, and require more transparent disclosures regarding corporate tax strategies, financing structures, and sustainability practices. Sector-specific tax governance supervision is also important to support fiscal sustainability, increase corporate accountability, and strengthen public trust in Indonesia's energy industry.

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