



## The Effect of Profitability, Firm Size and Leverage on Tax Avoidance in Energy Sector Companies Listed on the Indonesia Stock Exchange in 2022-2024

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### ARTICLE INFO

*Keywords:* Tax Avoidance, Profitability, Firm Size, Leverage

*Received :* 3 October

*Revised :* 18 November

*Accepted:* 18 December

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### ABSTRACT

The purpose of this study is to examine how profitability, firm size, and leverage influence tax avoidance practices among energy sector companies listed on the Indonesia Stock Exchange during the period 2022-2024. Tax avoidance in this research is defined as a legal strategy used by companies to minimize tax expense by utilizing gaps within existing regulations. Although permissible, this practice often raises broader ethical questions, particularly regarding its impact on the state's ability to generate sustainable tax revenue and support public development. This study employs secondary data obtained from published annual financial reports. The sample was determined using a purposive sampling method, ensuring that only companies with complete and consistent data across the three year period were included. A total of 21 companies met the criteria and were analyzed using EViews 12 SV through multiple regression techniques to evaluate the effect of each variable on tax avoidance. The empirical findings show that profitability has a positive effect on tax avoidance, meaning that companies with higher profits tend to take more active steps in reducing their tax burden. Firm size is found to have a negative effect, indicating that larger companies due to higher public visibility and stronger governance structures are generally more cautious and less inclined to engage in tax avoidance. In contrast, leverage demonstrates a positive effect on tax avoidance. This suggests that firms with higher debt levels may experience greater financial pressure, encouraging them to utilize both interest-related tax benefits and additional tax planning strategies to minimize their tax obligations

## INTRODUCTION

### Background

Tax revenues serve as a key foundation for a country's development, helping governments provide public services, improve infrastructure, and maintain social welfare. Because of this important function, understanding how companies manage their tax responsibilities has become increasingly relevant. One behavior that often attracts attention is tax avoidance a legal approach used by firms to reduce their tax burden. Although it operates within the boundaries of the law, tax avoidance often raises ethical concerns, as it can limit the government's ability to fund essential public needs.

The energy sector holds a particularly strategic position in Indonesia's economy. Companies in this industry manage large-scale operations, significant financial resources, and high levels of public visibility. These characteristics make them especially interesting when examining how internal corporate factors shape tax-related decisions. Elements such as profitability, firm size, and leverage reflect not only financial conditions but also managerial choices and organizational priorities. Each of these factors may influence how a company balances business efficiency with its responsibility to contribute to the nation.

Prior research on this topic has produced varied and sometimes contradictory findings, highlighting the need for further study especially in sectors as dynamic as energy. This research contributes to that conversation by exploring how profitability, firm size, and leverage affect tax avoidance among energy companies listed on the Indonesia Stock Exchange (IDX). The insights generated are expected to support policymakers, investors, and practitioners in fostering more transparent and responsible corporate tax behavior.

## LITERATURE REVIEW

### Agency Theory

Agency theory explains the contractual relationship between principals (shareholders) and agents (managers). Shareholders see it as a strategy to reduce taxes and increase company value (Desai & Dharmapala, 2006), while managers face risks such as sanctions and reputational damage, so they tend to avoid overly aggressive tax strategies (Hanlon & Heitzman, 2010). Company characteristics such as profitability, size, and leverage influence these dynamics and managers' tax-related decisions (Kurniasih & Sari, 2013; Zimmerman, 1983).

### Tax Avoidance

Tax avoidance refers to legal strategies companies use to lower their tax obligations by taking advantage of gaps or flexibility in tax rules without breaking the law (Handayani, 2018). Although lawful, these practices often raise ethical questions, as they can reduce fairness in taxation and limit government funds for public services, highlighting the tension between business goals and social responsibility.

### Profitability

Profitability is a key measure of a company's ability to generate profit from its resources. It reflects not only operational outcomes but also how effectively management uses assets, capital, and human resources to create economic value. Several studies indicate that highly profitable companies often manage their tax

obligations strategically to maintain optimal net income without violating applicable regulations (Wahyuni & Wahyudi, 2021).

High profitability indicates that a company generates substantial earnings, which also increases its tax obligations. According to positive accounting theory, management is motivated to maintain high after-tax profit through tax planning. Thus, higher profitability is expected to increase a firm's tendency to engage in tax avoidance.

H1: "Profitability has a positive effect on tax avoidance"

#### **Firm Size**

Firm size refers to the scale of a business, classifying firms as small, medium, or large based on indicators such as total assets, revenue, capital, or market value (Kurniasih & Hermanto, 2020). Larger companies typically have more complex structures, diverse operations, and greater access to resources, including tax management, giving them more opportunities to develop tax planning strategies.

Large companies typically have greater total assets and more complex transactions, providing more opportunities for tax avoidance through strategies like transaction structuring and regulatory planning. They also tend to have better resources, tax management, and accounting technology. Therefore, larger firms are generally more capable of implementing tax avoidance measures.

H2: Firm size has a positive effect on tax avoidance

#### **Leverage**

Leverage reflects the extent to which a company uses debt as a source of financing. High leverage means a larger portion of funding comes from debt, which creates interest obligations. Since interest expenses are deductible from taxable income, highly leveraged companies benefit from a tax shield. According to capital structure theory, firms often balance debt and equity to maximize tax benefits. Consequently, high leverage is generally associated with lower tax avoidance, as companies already reduce taxes through interest deductions (Mahdiana & Amin, 2020).

High leverage indicates a greater proportion of debt in the company's capital structure. Interest expenses reduce taxable income, providing a natural tax benefit. Consequently, highly leveraged firms have less need for additional tax avoidance strategies, implying a negative relationship between leverage and tax avoidance.

H3: Leverage has a negative effect on tax avoidance

### **METHODOLOGY**

This study employs a quantitative research design to examine the effect of profitability, firm size, and leverage on tax avoidance in energy sector companies listed on the Indonesia Stock Exchange (IDX). The analysis uses panel data covering three years (2022-2024), combining time series and cross-section data, secondary data were obtained from audited annual reports published on the IDX official website.

The population consists of all energy sector companies listed on the IDX. The sample was selected using purposive sampling, with the following criteria:

1. Companies consistently listed in the energy sector during 2022-2024;
2. Companies presenting annual financial statements in Indonesian Rupiah (IDR);
3. Companies that consistently publish complete annual financial reports during the observation period;
4. Companies that did not report losses during the observation period.

Based on these criteria, 22 firms met the requirements, producing 66 firm-year observations, which were later reduced to 63 after removing outliers identified through studentized residuals.

Tabel 1. Operationalization of Research Variables

Variable	Proxy	Scale	Source
Tax Avoidance	$TA = ETR - CETR$ $CETR = \frac{\text{Cash Tax Payment}}{\text{Net Income Before Tax}}$ $ETR = \frac{\text{Tax Expense}}{\text{Net Income Before Tax}}$	Ratio	Paraswati & Purwaningsih (2024)
Profitability	$NPM = \frac{\text{Total Revenue}}{\text{Net Income}}$	Ratio	Paraswati & Purwaningsih (2024)
Firm Size	$SIZE = \ln \text{ Total Asset}$	Ratio	Paraswati & Purwaningsih (2024)
Leverage	$DER = \frac{\text{Total Liability}}{\text{Total Equity}}$	Rasio	Paraswati & Purwaningsih (2024)

## RESULT

Table 2. Partial Test (t-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.105824	0.563532	1.962308	0.0544
X1	0.659873	0.277641	2.376709	0.0207
X2	-0.047099	0.020799	-2.264519	0.0272
X3	0.127919	0.061161	2.091501	0.0408

Source : Data Processed, 2025

### **The Effect of Profitability on Tax Avoidance**

Profitability, represented in this study by the Net Profit Margin (NPM), is found to have a positive and significant effect on tax avoidance. The probability value of  $(0,0207 < 0,05)$ , H1 is accepted. Indicates that during 2022–2024, energy sector companies in Indonesia tended to engage more actively in tax avoidance as their profits increased. The positive regression coefficient of 0.659873 shows that the greater the company's ability to generate net income, the stronger the management's motivation to manage tax burdens strategically in order to maintain shareholder welfare and ensure business sustainability.

The findings of this study align with several previous studies. Handayani (2018), Mahdiana & Amin (2020), Wahyudi & Wahyuni (2021), and William & Indrati (2024) show that high profitability encourages companies to engage in tax avoidance as a way to maintain income stability and protect shareholder interests. However, different results were reported by Rahmawati & Nani (2021), Sulaeman (2021), Saputra, Wijayanti & Astungkara (2022), and Tami & Muthaher (2025). They found that highly profitable companies tend to be more cautious because they are under public and regulatory scrutiny, making them avoid aggressive tax avoidance practices to protect their reputation. Meanwhile, Pramesti, Endiana & Adella (2022) and Rahayu, Nuridah & Kusumaningtyas (2024) argue that companies with high profits generally have sufficient financial capacity to meet their tax obligations, reducing the need to engage in tax avoidance.

### **The Effect of Firm Size on Tax Avoidance**

The findings show that firm size has a significant effect on tax avoidance, as indicated by the probability value of  $(0.0272, < 0,05)$  and H2 is rejected. The negative regression coefficient  $(-0.047099)$  suggests an inverse relationship, meaning that larger companies tend to be more cautious and are less likely to engage in tax avoidance. This reflects how bigger firms often prioritize maintaining public trust and fulfilling their tax obligations responsibly.

The findings of this study align with the results of Sulaeman (2021), Saputra, Wijayanti & Astungkara (2022), and Tami & Muthaher (2025), who found that larger firms tend to show higher tax compliance. With greater public exposure and more structured governance, big companies are generally more cautious in avoiding actions that could damage their reputation. However, other studies such as Handayani (2018) and William & Indrati (2024) offer a different perspective. They argue that large firms often possess extensive financial and professional resources, enabling them to design more sophisticated tax strategies, including legally permissible forms of tax avoidance. Meanwhile, research by Mahdiana & Amin (2020), Ainniyya et al. (2021), Rahmawati & Nani (2021), Wahyuni & Wahyudi (2021), and Pramesti et al. (2022) suggests that firm size does not necessarily influence tax avoidance. Their findings highlight that decisions related to tax planning are shaped more by managerial strategy, industry conditions, and financial pressures rather than the sheer scale of a company's assets.

### **The Effect of Leverage on Tax Avoidance**

The findings show that leverage, measured through the Debt to Equity Ratio (DER), has a positive and significant effect on tax avoidance. The probability value of (0.0408 < 0,05), H3 is rejected. Indicates that DER plays an important role in explaining variations in tax avoidance behavior. The positive regression coefficient (0.127919) suggests that as companies rely more on debt financing, their tendency to engage in tax avoidance strategies also increases.

The findings of this study are consistent with those of Mahdiana & Amin (2020), Ainniyya et al. (2021), Saputra, Wijayanti & Astungkara (2022), and Tami & Muthaher, who reported a positive and significant relationship between leverage and tax avoidance. Companies with higher debt levels tend to be more inclined to engage in tax avoidance because interest expenses can reduce taxable income, helping them maintain financial stability. As financial pressure from debt obligations increases, management is more likely to design tax planning strategies that legally minimize the tax burden.

In contrast, Wahyuni & Wahyudi (2021) and William & Indrati (2024) found a negative relationship, while studies by Handayani (2018), Pasaribu & Mulyani (2019), and Gultom (2021) indicate that leverage does not always have a significant effect. These differences suggest that the impact of leverage on tax avoidance can vary depending on industry characteristics, capital structure, and the regulatory environment.

### **CONCLUSIONS**

This study investigates the influence of profitability, firm size, and leverage on tax avoidance among energy sector companies listed on the Indonesia Stock Exchange during 2022–2024. The empirical results show that profitability has a positive and significant effect on tax avoidance, indicating that firms generating higher profits tend to manage their tax burden more actively to preserve after-tax income and support business sustainability. Firm size is found to have a negative and significant effect on tax avoidance. This suggests that larger companies, which operate under higher public scrutiny and stronger governance structures, tend to act more prudently and prioritize maintaining their credibility by complying with tax regulations. Leverage demonstrates a positive and significant effect on tax avoidance. Companies with higher debt levels appear to rely more on tax-saving strategies, taking advantage of interest expenses and pursuing additional tax planning efforts to ease financial pressures. Overall, the findings highlight how internal financial characteristics shape corporate tax behavior. Understanding these dynamics is essential for policymakers and stakeholders in promoting transparent, fair, and responsible tax practices within the energy sector.

#### **Limitation**

This study has several limitations: The research period covers only three years. b) The sample is limited to companies in the energy sector. c) The analysis uses only three independent variables.

## **RECOMMENDATIONS**

Based on the limitations identified in this study, several recommendations can be made for future research: a) Extend the research period beyond three years to capture more stable and comprehensive trends. b) Broaden the sample by including companies from additional sectors beyond the energy industry to enhance generalizability. c) Add more independent variables or replace existing ones with other relevant factors that may influence tax avoidance, such as corporate governance, sales growth, capital intensity, or liquidity

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