



The impact of corporate governance, financial performance, and managerial ownership on tax avoidance

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Abstract

This study is motivated by the growing public concern over tax avoidance practices in Indonesia, particularly in the pharmaceutical sector, which operates under strict regulations, faces profit margin pressures, and has received various fiscal incentives, especially during and after the COVID-19 pandemic. The purpose of this research is to analyze the effect of corporate governance, financial performance, and managerial ownership on tax avoidance, while considering firm size, leverage, and capital intensity as control variables. This research employs a quantitative approach with a causal-comparative design. Secondary data were obtained from annual reports of pharmaceutical companies listed on the Indonesia Stock Exchange for the 2020-2023 period, using purposive sampling with a total of 44 observations. Data analysis was conducted using multiple linear regression, with the Effective Tax Rate (ETR) and Book-Tax Difference (BTD) as proxies for tax avoidance. The results indicate that financial performance has a significant negative effect on tax avoidance when measured using ETR, whereas corporate governance and managerial ownership show no significant effect. Among the control variables, leverage has a significant effect on both tax avoidance proxies, while firm size and capital intensity are not significant. These findings reinforce agency theory, suggesting that financial factors and capital structure play a crucial role in corporate tax strategies. This research provides implications for regulators and corporate management to consider financial and governance factors as part of tax control policies and recommends further studies with a broader time frame and sectoral scope.

Keywords: Corporate governance, financial performance, managerial ownership, tax avoidance, pharmaceutical industry

Introduction

Taxes are one of the most essential components of national revenue and play a significant role in financing national development. In 2023, the Directorate General of Taxes recorded tax revenue of IDR 1,869.23 trillion, an 8.9% increase compared to 2022. Although this achievement reflects the success of fiscal authorities, tax avoidance remains a critical issue faced by the government, as it has the potential to reduce national revenue (DJP, 2024)^[2]. Tax avoidance is a strategy used by companies to minimize their tax burden through transaction engineering, tax incentives, and financial statement adjustments (Hanlon & Heitzman, 2010)^[5].

The COVID-19 pandemic had a significant impact on the pharmaceutical industry, which saw a surge in demand for medicines, medical equipment, and vaccines. This situation increased the profitability of companies but also posed a risk for tax avoidance practices, as fiscal policy flexibility and incentives were provided, such as government-paid taxes (DTP) and exemptions from PPh 22 imports through PMK No. 226/PMK.03/2021 and PMK No. 113/PMK.03/2022. Additionally, the pharmaceutical sector received tax holiday facilities, tax allowances, and super deduction tax of 300% for R&D activities (PMK No. 153/PMK.010/2020). While these policies aim to encourage investment and innovation, they also have the potential to open up opportunities for aggressive tax planning. The pharmaceutical industry is known for its complexity as it operates under the supervision of BPOM, the Ministry of Health, and the Ministry of Finance. This regulatory complexity encourages companies to seek fiscal efficiency, including tax strategies (Totanan *et al.*, 2024)^[16]. A study by Widiani & Trisnawati (2024)^[18] revealed that transfer pricing, capital intensity,

and thin capitalization factors significantly contribute to tax avoidance tendencies in the pharmaceutical and healthcare subsectors in Indonesia.

In this context, corporate governance becomes an essential factor in limiting tax avoidance. The structure of an independent board of commissioners, audit committees, and transparency of information are believed to effectively suppress tax manipulation (Lanis & Richardson, 2012^[10]; Kerr *et al.*, 2024)^[8]. Financial performance also plays a role, as companies with low profitability tend to avoid taxes to maximize profits, while companies with high profits face a dilemma between fiscal efficiency and reputational risk (Rinaldi *et al.*, 2023)^[14]. Managerial ownership may also influence tax avoidance, as larger ownership can align the interests of managers and shareholders but may also encourage tax avoidance strategies to increase short-term company value (Wongsinhirun *et al.*, 2024^[20]; Thai *et al.*, 2023)^[15].

Despite ongoing tax regulation updates, tax avoidance practices remain widespread in Indonesia. The challenge is increasing as there is still limited empirical research directly examining the impact of corporate governance, financial performance, and managerial ownership on tax avoidance, particularly in the pharmaceutical subsector. This study also considers control variables such as firm size, leverage, and capital intensity, which have been shown to influence tax strategies (Richardson *et al.*, 2013; Lanis & Richardson, 2012^[10]; Zimmerman, 1983)^[22].

Framework and Hypotheses

Agency Theory

Agency theory, developed by Jensen & Meckling (1976)^[7], explains the relationship between owners (principals) and

management (agents), which often leads to agency conflicts. One form of this conflict is tax avoidance, where managers seek to increase net income and performance image for compensation, even at the cost of exploiting regulatory loopholes.

Corporate governance mechanisms, such as independent boards of commissioners and audit committees, play a crucial role in limiting such practices. Lanis & Richardson (2013) demonstrated that strong oversight reduces a company's tendency to engage in tax avoidance. Managerial ownership also reduces agency conflicts, as managers bear the risks of their decisions, as shown by Wongsinhirun *et al.* (2024)^[20].

Additionally, high financial performance can encourage managers to engage in tax avoidance to maintain profitability (Desai & Dharmapala, 2006). During the COVID-19 pandemic, increased demand in pharmaceuticals and the provision of tax incentives (OECD, 2021)^[11, 12] created opportunities for more aggressive tax avoidance strategies. Therefore, agency theory serves as the framework for analyzing the impact of corporate governance, financial performance, and managerial ownership on tax avoidance in Indonesian pharmaceutical companies.

Hypotheses

The Effect of Corporate Governance on Tax Avoidance

Corporate governance is a system used to direct and control companies to achieve efficiency, accountability, and protect the interests of shareholders. Based on agency theory (Jensen & Meckling, 1976)^[7], there is potential conflict between managers and owners. One form of opportunistic behavior by agents is tax avoidance, which provides short-term benefits but harms long-term interests. Good governance through independent boards, audit committees, and transparency in financial reporting is believed to reduce such practices. Kerr *et al.* (2024)^[8] show that corporate governance reforms significantly reduce tax avoidance. Research by Abdelfattah & Aboud (2020)^[1] and Thai *et al.* (2023)^[15] supports the idea that a complex governance structure and effective internal oversight can suppress tax manipulation. Wongsinhirun *et al.* (2024)^[20] also found that higher managerial ownership is associated with lower tax avoidance practices.

- **H1a:** Corporate governance negatively affects tax avoidance as measured by ETR.
- **H1b:** Corporate governance negatively affects tax avoidance as measured by BTB.

The Effect of Financial Performance on Tax Avoidance

Financial performance, indicated by Return on Assets (ROA), reflects the company's ability to generate profits from its assets. According to agency theory, managers aim to maximize post-tax profits to maintain performance images, one of which may involve tax avoidance. Rinaldi *et al.* (2023)^[14] found that profitability negatively affects tax avoidance, with companies with low ROA more likely to engage in tax avoidance. On the other hand, companies with high profitability are more cautious due to reputational risk and tax scrutiny. Gowira *et al.* (2024)^[5] also show that profitability negatively affects ETR. This aligns with agency theory, where managers can exploit tax loopholes for short-term gain.

- **H2a:** Financial performance negatively affects tax avoidance as measured by ETR.

- **H2b:** Financial performance negatively affects tax avoidance as measured by BTB.

The Effect of Managerial Ownership on Tax Avoidance

Managerial ownership is the proportion of shares held by managers. The larger the managerial ownership, the smaller the agency conflict because the interests of the manager align with those of the owners. Wongsinhirun *et al.* (2024)^[20] show a significant negative relationship between managerial ownership and tax avoidance. The larger the shareholding by managers, the lower the tendency for managers to act opportunistically because the risk of failure directly impacts the value of their ownership. Therefore, managerial ownership increases accountability and reduces the incentive to engage in tax avoidance.

- **H3a:** Managerial ownership negatively affects tax avoidance as measured by ETR.
- **H3b:** Managerial ownership negatively affects tax avoidance as measured by BTB.

Research Method

This study focuses on tax avoidance, which is measured using two indicators: Effective Tax Rate (ETR) and Book-Tax Differences (BTB), to provide a more comprehensive view of the tax avoidance strategies employed by companies. The independent variables in this study are corporate governance, financial performance, and managerial ownership. Sampling was done using purposive sampling, where samples are selected based on specific criteria that meet the research's objectives. The type of data used in this study is secondary quantitative data, which aims to test the influence of independent variables (corporate governance, financial performance, and managerial ownership) on the dependent variable (tax avoidance), as well as control variables such as firm size, leverage, and capital intensity. The data sources for this study come from the annual financial reports of manufacturing pharmaceutical companies listed on the Indonesia Stock Exchange for the 2020-2023 period, totaling 44 observations.

Results and Discussion

The Effective Tax Rate (ETR), which is one of the proxies for tax avoidance, has a range of values between 0.02 and 5.28. The mean value of 0.4271 suggests that, on average, the companies in the sample pay approximately 42.71% of their profits as taxes. The high standard deviation of 0.86244 indicates that there is considerable variation in the tax rates reported by the companies. This variability suggests that some companies are involved in tax avoidance strategies, as reflected by a lower ETR, while others have a higher effective tax rate.

The Book-Tax Difference (BTB), another proxy for tax avoidance, ranges from -0.14 to 0.84. The mean value of 0.0398 shows that, on average, the companies have a slight difference between their reported accounting profits and their taxable profits. The standard deviation of 0.14406 indicates that there is some variation in the degree of discrepancy between book and tax profits across the sample, suggesting that tax avoidance practices might differ among companies.

The Corporate Governance variable, measured by an index ranging from 2.00 to 4.00, has a mean score of 3.5455. This suggests that, on average, the companies in the sample exhibit relatively strong corporate governance practices,

with a good degree of transparency, accountability, and independent oversight. The standard deviation of 0.54792 indicates some variation in the corporate governance quality among the companies in the sample.

The Financial Performance variable, measured by Return on Assets (ROA), ranges from 0.00 to 0.95, with a mean of 0.1225. This indicates that the companies on average have a low profitability rate, with ROA values suggesting that they are able to generate a small profit relative to their total assets. The standard deviation of 0.14968 shows that the profitability across the companies varies, with some performing better than others.

The Managerial Ownership variable has a mean of 0.0277, indicating that, on average, managers own a small percentage of the company's shares (approximately 2.77%). The range of managerial ownership is between 0.00 and 0.41, with a standard deviation of 0.08888. This suggests that the ownership concentration by managers is relatively low across the sample.

The Firm Size variable, measured by the natural logarithm of total assets, ranges from 26.00 to 31.00, with a mean of 28.7727. The large firms in the sample are more likely to have a significant market presence, and the standard deviation of 1.23634 suggests moderate variability in firm size.

Leverage, measured by the debt-to-equity ratio, ranges from 0.13 to 2.06, with a mean of 0.4474. This indicates that, on average, the companies in the sample use relatively low levels of debt in their capital structure. The standard deviation of 0.32205 shows that there is considerable variation in the use of debt across the companies, with some companies being more leveraged than others.

Finally, the Capital Intensity variable, which measures the ratio of capital expenditures to total assets, ranges from 0.08 to 0.55, with a mean value of 0.3044. This suggests that the companies, on average, invest about 30% of their total assets in capital expenditures. The standard deviation of 0.13158 indicates that the companies vary in their capital expenditure levels.

T-Test Statistics - ETR

The T-Test Statistics for ETR (Effective Tax Rate) revealed several important findings regarding the relationship between the independent variables and tax avoidance. Corporate governance, which is expected to play a key role in mitigating tax avoidance, was found to have no significant effect on tax avoidance as measured by ETR. This indicates that, despite the theoretical expectation that strong governance mechanisms—such as independent boards and audit committees—should reduce tax avoidance behavior, this was not supported by the data in the pharmaceutical sector. The result suggests that while governance structures are in place, they may not be sufficiently robust or effective in addressing tax avoidance in this sector, or the implementation may be more formal rather than substantive, which aligns with some previous findings in agency theory.

On the other hand, financial performance, measured by Return on Assets (ROA), exhibited a significant negative effect on ETR, with a significance level of 0.049. This suggests that higher financial performance is associated with lower tax avoidance. In other words, companies with better financial performance (higher ROA) are less likely to engage in aggressive tax avoidance strategies. This is in line

with agency theory, which posits that managers of highly profitable companies are more likely to engage in tax avoidance to maximize their after-tax income, but also need to consider the risks to their reputation and the scrutiny from regulators. The negative relationship suggests that these companies may have more resources and fewer incentives to engage in tax avoidance, possibly due to better compliance or a more sophisticated understanding of the long-term implications of tax avoidance.

In contrast, managerial ownership did not show a statistically significant effect on ETR, although the coefficient was negative. This finding suggests that, even though agency theory predicts that managerial ownership can align the interests of managers with those of shareholders and reduce opportunistic behavior (like tax avoidance), in this case, the ownership levels were insufficient or not substantial enough to influence tax avoidance practices. The negative coefficient supports the idea that higher managerial ownership could theoretically reduce tax avoidance, but the lack of statistical significance means that this variable might not be influential enough in the sample analyzed, possibly due to relatively low levels of managerial ownership in the companies studied.

Leverage had a significant negative effect on tax avoidance with a p-value of 0.001, which is consistent across both ETR and BTM analyses. This suggests that companies with higher leverage (greater debt relative to equity) tend to engage more in tax avoidance. One possible explanation is that firms with high leverage may engage in tax avoidance to reduce their tax liabilities, as tax savings from debt-related interest payments may further incentivize them to explore aggressive tax planning strategies. Leverage is often associated with a higher need for tax shields, leading firms to seek opportunities to minimize taxable income.

Finally, firm size and capital intensity did not show significant effects on ETR in this model. This suggests that larger companies or those with higher capital expenditure relative to their assets do not necessarily engage in tax avoidance more or less than smaller or less capital-intensive firms. It could imply that factors such as governance and profitability play a more decisive role in determining tax avoidance behavior than firm size or the intensity of capital investments.

T-Test Statistics - BTM

For the T-Test Statistics for BTM (Book-Tax Differences), the results were largely consistent with those for ETR. Corporate governance again showed no significant effect on tax avoidance, as measured by BTM. This reaffirms the earlier conclusion that corporate governance mechanisms, in their current form, may not be effective in curbing tax avoidance in the pharmaceutical sector. The absence of significance could also be due to the fact that governance structures, while present, may not have been actively engaged in monitoring tax-related decisions or there might be a disconnect between formal governance structures and the operational decisions made by management.

The financial performance variable, while positive, did not show a statistically significant effect on BTM, as indicated by the p-value of 0.088. This is somewhat contradictory to the results found with ETR, where financial performance had a significant negative effect. The positive but insignificant relationship between financial performance and BTM suggests that although companies with higher

profitability may engage in tax avoidance, the effect is not robust enough to be statistically significant when using BTD as the measure. BTD reflects the differences between accounting profits and taxable profits, and companies with higher profitability might be more inclined to exploit those differences, though this relationship is not strong enough to be confirmed in the data.

Leverage, however, showed a significant positive effect on tax avoidance with a significance value of 0.019. This indicates that higher leverage increases the likelihood of tax avoidance as measured by BTD. This finding aligns with the ETR analysis, where leverage was also found to have a significant impact on tax avoidance. High leverage often creates opportunities for firms to engage in tax avoidance by taking advantage of tax deductions related to interest payments. Therefore, companies with high levels of debt may be more motivated to engage in tax avoidance strategies to maximize their tax shields and reduce overall tax liabilities.

On the other hand, the firm size variable was found to have a p-value of 0.079, which is close to the 5% threshold but still does not reach statistical significance. This suggests that although larger firms may have the resources to engage in tax avoidance, the effect is not statistically significant. Similarly, capital intensity, with a p-value of 0.390, did not show a significant effect on BTD. This finding suggests that capital expenditure relative to assets does not influence the degree of tax avoidance in the sample analyzed.

Conclusion

This study aims to examine the effect of corporate governance, financial performance, and managerial ownership on tax avoidance in pharmaceutical companies listed on the Indonesia Stock Exchange during the period of 2020-2023. Tax avoidance is measured using two proxies: Effective Tax Rate (ETR) and Book-Tax Differences (BTD), with firm size, leverage, and capital intensity as control variables. The results of the study indicate that corporate governance and managerial ownership do not have a significant impact on tax avoidance. Meanwhile, financial performance has a significant negative effect on ETR but no significant effect on BTD. Additionally, leverage consistently has a significant effect on both proxies, while firm size and capital intensity do not show significant effects.

Theoretically, these results enrich the literature on the determinants of tax avoidance, particularly in the pharmaceutical sector. Practically, these findings emphasize the importance of monitoring profitability and capital structure when designing fair and effective tax policies. Regulators and policymakers are expected to strengthen the oversight of corporate governance, while company managers should implement transparent and accountable tax management practices to maintain the company's reputation and the trust of stakeholders.

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