

Corporate Characteristics and Tax Avoidance: Empirical Evidence from Indonesia

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ABSTRACT

This study investigates the effect of profitability (ROA), leverage (DER), firm size (SIZE), and managerial ownership (MNGR) on tax avoidance, measured by the effective tax rate (ETR), in companies listed on the Indonesia Stock Exchange. Using a quantitative approach with secondary data from annual reports, the analysis employs moderated regression analysis (MRA) to test both direct and moderating effects. The results show that profitability and firm size have a negative and significant effect on ETR, indicating that highly profitable and larger firms are more likely to engage in tax avoidance. In contrast, leverage has a positive and significant effect on ETR, suggesting that highly leveraged firms tend to reduce tax avoidance, potentially due to creditor monitoring and financial stability concerns. Managerial ownership does not directly affect ETR, but it strengthens the negative relationship between profitability and ETR, supporting the agency theory perspective that managerial equity participation enhances incentives for tax minimization. These findings contribute to the literature by providing new evidence from an emerging market context and offer practical implications for policymakers and regulators in improving tax compliance and corporate governance.

Keywords: *Effective Tax Rate, Profitability, Leverage, Firm Size, Managerial Ownership*

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INTRODUCTION

Tax avoidance has emerged as one of the most debated issues in corporate governance and taxation studies, particularly in developing and emerging economies. Tax revenue serves as a crucial source of government financing for development and public welfare; however, the persistence of corporate tax avoidance reduces state income and undermines fiscal sustainability (Hossain et al., 2024). In practice, tax avoidance refers to efforts made by firms to minimize tax liabilities legally by exploiting loopholes in existing regulations (Muljadi & Feliana, 2024). Although it is formally legal, tax avoidance often raises ethical and agency concerns since it can erode public trust and contribute to a persistent decline in the tax-to-GDP ratio in many developing countries. Therefore, identifying firm-level characteristics that drive corporate tax avoidance is a matter of both academic and policy relevance.

Prior research has documented that firm characteristics such as profitability, leverage, and company size significantly influence the level of tax avoidance. For instance, firms with higher profitability tend to engage more aggressively in tax minimization strategies (Hossain et al., 2025). Leverage is often associated with tax benefits from interest deductibility, thereby influencing firms' tax avoidance behavior (Tran et al., 2023). Similarly, larger firms, due to their complex structures and greater political visibility, exhibit heterogeneous tendencies in engaging in tax avoidance, either to maximize shareholder value or to maintain reputational legitimacy (Muljadi & Feliana, 2024). Beyond these structural attributes, ownership mechanisms, particularly managerial ownership, are crucial in shaping managers' incentives toward tax strategies. Studies show that higher managerial ownership can align the interests of managers and shareholders, potentially reducing agency-driven tax avoidance (Wongsinhirun et al., 2024). However, other findings suggest that managerial ownership may also intensify tax avoidance when profitability incentives are strong (Olanisebe et al., 2023).

Despite extensive research, findings on the interaction between firm characteristics and tax avoidance remain inconsistent across contexts. Moreover, the role of managerial ownership as a moderating factor in this relationship has received limited attention, particularly in the context of emerging markets such as Indonesia, where tax ratios remain persistently low compared to regional peers (Muljadi & Feliana, 2024). This creates a knowledge gap in understanding how profitability, leverage, and firm size jointly influence tax avoidance when managerial ownership is considered as a governance mechanism.

Therefore, this study aims to examine the effect of profitability, leverage, and firm size on tax avoidance, with managerial ownership tested as a moderating variable. The contribution of this research lies in two aspects. First, it integrates agency theory and corporate governance perspectives to explain how ownership structure interacts with firm performance indicators in influencing tax avoidance. Second, this study enriches the empirical literature on tax avoidance in emerging markets, providing contextual evidence from Indonesia that can guide regulators, investors, and policymakers in strengthening tax compliance and governance practices.

METHOD

This study employed a quantitative research design with a causal-comparative approach to examine the relationship between independent and dependent variables as well as the moderating role of managerial ownership. The quantitative approach was chosen because the study focuses on measuring the relationships among variables using secondary data from companies listed on the Indonesia Stock Exchange (IDX). The causal design was applied to identify how profitability, leverage, and firm size affect tax avoidance, and whether managerial ownership strengthens or weakens these relationships.

The population of this research consists of manufacturing companies listed on the Indonesia Stock Exchange during 2019-2023. The sampling technique used was purposive sampling with the following criteria: (1) companies publish complete annual reports during

the research period; (2) availability of required data such as total assets, net income, tax expense, debt, and the proportion of managerial ownership; (3) companies not delisted during the observation period. The final sample includes only firms that meet these criteria to ensure data consistency and validity for further statistical testing as many as 49 companies.

The study relied on secondary data obtained from annual reports and financial statements published on the official IDX website and company websites. Profitability was measured using return on assets (ROA), leverage using debt-to-equity ratio (DER), firm size using the natural logarithm of total assets, tax avoidance using the effective tax rate (ETR), and managerial ownership using the proportion of shares held by managers relative to total outstanding shares. The data collection process involved systematically extracting and recording information from financial reports into a research database for subsequent statistical analysis. Data were analyzed using Moderated Regression Analysis (MRA) following Soesetio et al. (2024).

Table 1: Variable Measurement

Variable	Operational Definition	Proxy	Reference
Tax Avoidance	Tax avoidance is measured by the ratio between tax expense and profit before tax. A lower ETR indicates higher tax avoidance since the company pays less tax compared to its potential profit before tax	$ETR = \frac{\text{Total Tax Expense}}{\text{Annual Profit Before Tax}}$	(Aprilliasari & Soesetio, 2024; Tran et al., 2023)
Managerial Ownership	Managerial ownership reflects the percentage of company shares held by management, which represents their involvement in company ownership	$MNGR = \frac{\text{Managerial Share Ownership}}{\text{Total Outstanding Shares}}$	(Deef et al., 2021; Wongsinhirun et al., 2024)
Profitability	Profitability is measured using Return on Assets (ROA), which assesses the company's efficiency in generating net income or current year's profit	$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$	(Chandra & Cintya, 2021; Hossain et al., 2025)
Leverage	Leverage is measured using the Debt to Equity Ratio (DER), showing the proportion of company debt in financing its assets compared to equity	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$	(Handoyo et al., 2022; Tran et al., 2023)
Firm Size	Firm size indicates how large or small a company is, measured using the natural logarithm of its total assets	$SIZE = \text{Natural Logarithm of Total Assets}$	(Putri et al., 2024; Tran et al., 2023)

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Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
ETR	245	0.268	0.269	0.004	2.941
ROA	245	0.079	0.060	-0.020	0.416
DER	245	0.785	0.664	0.071	3.235
SIZE	245	29.487	1.647	26.463	33.731
MNGR	245	0.064	0.166	0.000	0.942

Source: data processed

Table 2 presents the descriptive statistics for the variables used in this study, namely tax avoidance (ETR), profitability (ROA), leverage (DER), firm size (SIZE), and managerial ownership (MNGR). The ETR variable, a proxy for tax avoidance, showed a minimum value of 0.004, obtained by PT MNC Land in 2020, while the highest value, 2.941, was obtained by PT Sampoerna Agro Tbk in 2020. With a standard deviation of 0.2738, which is higher than the mean, this ETR indicates significant variability in the data, with data points widely spread from the mean.

Managerial Ownership (MNGR) has a mean of 0.06362, indicating that most companies have low levels of managerial ownership, with values ranging from 0 to 0.942. The relatively high standard deviation of 0.16522 compared to the average indicates significant differences in managerial ownership structures across companies. Profitability (ROA) has a mean of 0.08003, with a lowest value of -0.0200 and a highest value of 0.41600. The relatively small standard deviation of 0.06069 indicates that profitability among companies is quite stable, despite some companies experiencing losses and experiencing very high performance. Meanwhile, Leverage (DER) has a mean of 0.7911, with a minimum value ranging from 0.0710 to a maximum of 3.235. A standard deviation of 0.6762 indicates significant differences in the level of debt usage between companies. Company Size (SIZE) has a mean of 29.403, with a lowest value of 26.463 and a highest of 33.731. A standard deviation of 1.627 indicates that company sizes are relatively uniform without any extreme variations.

Table 3: Moderated Regression Analysis Result

VARIABLES	(1) ETR	(2) ETR	(3) ETR
ROA	-1.083*** (0.410)	-1.126*** (0.424)	-1.201*** (0.460)
DER	0.039* (0.023)	0.039* (0.023)	0.040* (0.023)
SIZE	-0.013** (0.006)	-0.013** (0.006)	-0.015** (0.006)

MNGR		0.053 (0.037)	
ROAxMNGR			0.698** (0.310)
Constant	0.696*** (0.187)	0.717*** (0.189)	0.756*** (0.199)
Observations	245	245	245
R-squared	0.076	0.077	0.081

Source: data processed

The regression test results in Table 3 demonstrate the influence of the independent variables on the dependent variable, tax avoidance measured using the Effective Tax Rate (ETR). Leverage (DER) shows a positive coefficient toward ETR, indicating that an increase in DER reduces tax avoidance practices. Meanwhile, several other variables display negative effects on ETR, suggesting a tendency to increase tax avoidance practices. Profitability (ROA) shows a negative and significant coefficient at the 1% level. Firm size (SIZE) also shows a negative and significant coefficient at the 10% level. These findings indicate that firms with higher profitability and larger firm size tend to have lower ETRs, thus engaging in higher levels of tax avoidance. On the other hand, managerial ownership (MNGR) does not show a significant effect on ETR but positively moderates the effect of ROA on ETR. This suggests that an increase in managerial shareholding strengthens the negative effect of ROA on ETR.

DISCUSSION

Profitability in this study shows a significant influence on tax avoidance. The negative coefficient indicates that the higher the profitability of a company, the lower the Effective Tax Rate (ETR) tends to be, which means tax avoidance practices increase. Profitability is measured using the Return on Assets (ROA) indicator, namely the ratio of net income to total assets. This indicator reflects how efficiently a company generates profits from its assets. Highly profitable companies generally possess greater resources and stronger managerial capabilities to design tax efficiency strategies. Such strategies may include complex but legal tax avoidance schemes, such as transfer pricing, utilization of tax havens, and optimization of available tax incentives. From the perspective of agency theory, managers as agents have incentives to maximize firm value, one of which is by minimizing tax burdens in order to increase net income. Although these tax efficiency strategies are legal, they may lead to reduced corporate tax compliance. This is supported by data from the research sample, where the highest ROA was recorded by PT Multi Bintang Indonesia Tbk in 2018 at 40%, with an ETR of 20%. In contrast, the lowest ROA was recorded by PT Sampoerna Agro Tbk at -2% in 2020, but the company had an ETR of 290%. It is evident that PT Multi Bintang, with the highest profitability, paid proportionally less tax compared to PT Sampoerna Agro, which bore tax expenses more than twice its annual profit. These findings are consistent with Olanisebe et al. (2023); Tran et al. (2023), who state that highly

profitable firms tend to engage in tax aggressiveness in order to maintain or increase post-tax profits, ultimately aiming to enhance firm value in the eyes of shareholders.

Leverage (DER) has a significant effect on tax avoidance. In this study, leverage is measured using the Debt to Equity Ratio (DER), which illustrates the extent to which manufacturing companies rely on debt compared to equity to finance operational activities. From a theoretical perspective, debt financing is traditionally associated with tax savings through the interest tax shield mechanism, whereby interest payments are deductible from taxable income, thus reducing tax liabilities and increasing firm value. Studies in Indonesia have shown that leverage exerts a significant positive effect on ETR, particularly in financing, construction, and real estate firms (Pohan et al., 2022; Pristanti et al., 2020). Highly leveraged firms are subject to stricter oversight from lenders, who often demand transparent financial reporting to safeguard repayment capacity (Tran et al., 2023). This monitoring pressure can reduce managerial discretion in pursuing aggressive tax avoidance, resulting in more compliant tax reporting and, consequently, higher ETR. Moreover, highly leveraged companies are more likely to prioritize financial stability and debt servicing over tax minimization, avoiding strategies that could increase regulatory scrutiny or cash flow risks (Hossain et al., 2024).

Firm size in this study is found to significantly affect tax avoidance, indicating that as firm size increases, the Effective Tax Rate (ETR) tends to decrease. This finding suggests that larger firms have a stronger tendency to engage in tax avoidance. This relationship can be explained by the fact that a lower ETR reflects increasingly optimal tax efficiency as company size grows. In this study, firm size is measured using the natural logarithm of total assets, representing the scale and operational capacity of a company. Large firms typically have greater access to resources such as financial professionals, tax specialists, and legal and tax consultants. With these resources, large companies can design more complex yet legal tax planning strategies, such as exploiting regulatory loopholes, applying transfer pricing, or optimizing the use of tax incentives regulated under tax laws. Within the framework of agency theory, managers as agents seek to meet shareholder expectations by legally minimizing tax burdens. In large firms, this incentive is reinforced by the availability of resources that enable more effective tax avoidance strategies. From the sample of manufacturing firms in Indonesia, the company with the largest average total assets over five consecutive years was PT Astra International Tbk, amounting to IDR 383,289,600,000,000, followed by PT Indofood Sukses Makmur Tbk at IDR 161,100,700,000,000. Despite their massive asset base, both companies reported relatively low average ETRs, below 30%. This indicates a tendency for large firms to be more efficient in managing their tax burdens. These findings are reinforced by studies (Deslandes et al., 2020; Muljadi & Feliana, 2024; Tran et al., 2023), which show that firm size is positively associated with tax avoidance practices. In other words, the larger the company, the greater its capacity to optimize tax efficiency as part of its corporate financial strategy.

Managerial ownership (MNGR) does not show a significant effect on tax avoidance. Theoretically, managers who own shares in a company should have incentives to improve performance and efficiency, including through reducing tax burdens. However, the findings

of this study indicate that managerial ownership does not play a significant role in influencing tax policies. This result is consistent with Afdhal & Adiwibowo (2023), who also found that managerial shareholding does not effectively influence tax avoidance decisions. However, the moderating analysis reveals that managerial ownership strengthens the negative effect of profitability on ETR, meaning that when managers hold shares, profitable firms engage in even greater tax avoidance. This result supports the agency theory perspective, in which managerial shareholding incentivizes managers to adopt tax-saving strategies to maximize both corporate value and their personal wealth (Olanisebe et al., 2023; Wongsinhirun et al., 2024).

CONCLUSION

This study examined the effect of profitability (ROA), leverage (DER), firm size (SIZE), and managerial ownership (MNGR) on tax avoidance, as measured by the effective tax rate (ETR), using a sample of companies listed on the Indonesia Stock Exchange. The results reveal several key insights. First, both profitability and firm size have a negative and significant effect on ETR, suggesting that highly profitable and larger firms are more likely to engage in tax avoidance. This finding highlights that firms with greater resources and stronger incentives actively exploit opportunities to minimize tax liabilities. Second, leverage demonstrates a positive and significant effect on ETR, which implies that highly leveraged firms tend to engage in less tax avoidance. This result contrasts with conventional expectations of debt's tax shield benefits, indicating instead that creditor monitoring and financial stability considerations may constrain aggressive tax planning in leveraged firms. Third, managerial ownership does not have a direct significant effect on ETR. However, the moderating analysis confirms that managerial ownership strengthens the negative effect of profitability on ETR, implying that managers with equity stakes are more motivated to reduce corporate tax burdens when the firm is profitable, aligning with agency theory perspectives.

This research contributes to the tax avoidance literature by providing empirical evidence from an emerging market context, emphasizing the roles of profitability, firm size, and ownership structure in shaping corporate tax behavior. The findings have important implications for regulators and policymakers in designing tax regulations and corporate governance mechanisms aimed at ensuring compliance. For firms, the results underline the need to balance tax minimization strategies with financial transparency and governance practices.

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