



Profitability, Firm Size, Leverage, and Tax Avoidance in Indonesian Food and Beverage Companies

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Abstract. This study analyzes the influence of corporate characteristics on tax avoidance practices among food and beverage companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The research focuses on three main variables: profitability, firm size, and leverage. The analysis reveals that profitability, measured by Return on Assets (ROA), does not have a significant impact on tax avoidance, a significance level of 0.085. Similarly, firm size is not found to significantly affect tax avoidance, a significance level of 0.130. In contrast, leverage, measured by the Debt to Equity Ratio (DER), shows a positive and significant relationship with tax avoidance, a significance level of 0.018. These findings suggest that companies with higher leverage are more likely to engage in tax avoidance strategies by utilizing interest expenses to reduce taxable income. Overall, the results highlight that tax avoidance is a multifaceted issue influenced by various factors, particularly financial strategies related to capital structure.

Keywords: Tax Avoidance, Profitability, Leverage, Company Size, Indonesia Stock Exchange, Food and Beverage Industry.

1 Introduction

Tax revenue is a key source of government funding, derived from mandatory contributions required by law. It plays an essential role in driving economic growth and supporting national development efforts [1, 2]. Every taxpayer is obligated to meet their tax responsibilities, as taxes are crucial for funding public services and fostering the country's prosperity [2, 3]. The official assessment system, on the other hand, involves the government determining the tax liability, seen in property taxes (PBB), stamp duties, and vehicle taxes [3, 4]. The withholding system places the responsibility of tax calculation, payment, and reporting on a third party, such as in income taxes under Articles 21, 22, 23/26, and 15 [4, 6].

Taxpayer compliance is vital for sustaining national development, as timely tax payments directly fund this process [3, 9]. A taxpayer's adherence to tax rules is influenced by their comprehension of tax regulation updates. Consequently, enhancing public understanding of taxes is crucial for improving tax collection effectiveness [4, 7]. Tax avoidance involves legal strategies that reduce liabilities by exploiting gaps or

ambiguities in tax laws [4, 8]. One example is the use of "grey areas" in tax regulations where certain transactions are not clearly defined.

In recent years, Indonesia's tax ratio has fluctuated significantly, largely due to factors like the COVID-19 pandemic [3, 13]. These fluctuations suggest that Indonesia's tax system is susceptible to global economic shifts, which can affect national tax revenue [5, 9]. Furthermore, tax avoidance can lead to substantial revenue losses, as the government misses potential tax income [4, 14]. Tackling tax avoidance is now a central challenge for the government to improve compliance and bolster revenue collection. This requires stronger oversight, policy reforms, and stringent penalties for those who violate the tax laws [4, 15].

Profitability plays an important role in tax avoidance, as more profitable companies tend to have more resources to devise complex tax avoidance strategies [4, 16]. Larger companies typically have more resources and experience in managing tax liabilities, including the ability to plan tax avoidance strategies [6, 10]. Leverage, referring to a company's capital structure, is also a critical factor [7, 12].

In Indonesia's tax regulations, provisions on thin capitalization govern the ratio of debt to equity for tax purposes. The government has also implemented various regulations aimed at preventing the misuse of debt to reduce taxes unlawfully [8, 13]. For example, the Directorate General of Taxes (DJP) has set limits on the ratio of debt to assets used by companies, to prevent excessive debt from being used to reduce tax liabilities.

Despite the introduction of various regulations to address tax avoidance, this practice continues to occur due to misalignments between existing policies and actual practices [8, 14]. The conflicting interests between companies, which seek to minimize their tax burdens, and the government, which aims to maximize tax revenue, add complexity to this issue. Tax avoidance in Indonesia has evolved into a systemic problem that undermines the effectiveness of the tax system and government revenue collection. This practice is still common among large and medium-sized enterprises, which can impede sustainable economic development [8, 15]. Consequently, further measures by the government are needed to tighten regulations, improve tax compliance, and close legal loopholes that allow tax avoidance to persist.

2 Literature Review

2.1 Agency Theory

Highlights the relationship between the principal (owner) and the agent (management), where management is granted the authority to oversee the company and make decisions on behalf of the investors [9, 17]. The theory explains how the principal entrusts management with the responsibility of managing funds in an efficient and accountable manner. In return, management typically receives incentives, which can be both monetary and non-monetary [9, 18].

This theory also addresses the issue of risk allocation by incorporating the challenges that arise when the principal and agent have conflicting goals or perspectives [11, 20]. When there are differences in interests between tax authorities and the company, it can

lead to non-compliance from the taxpayer or management, ultimately fostering tax avoidance [13, 22].

The primary aim of agency theory is to explore ways to resolve conflicts of interest and reduce agency costs, ensuring that management aligns with the principal's interests [15, 24]. To mitigate agency issues, solutions such as clear contract agreements, suitable incentives, closer monitoring, and a fair distribution of risks between management and the principal can be implemented.

2.2 Profitability

To achieve sustainable growth and continuity, it is essential to understand the relationship between taxation and profitability [14, 33]. A high return on investment enables a company to finance a large portion of its internal funding, allowing it to rely less on external debt [14, 34]. Both profitability and tax avoidance have a direct correlation with a company's financial performance. Profitability reflects how efficiently a company generates profits from its operations, while tax avoidance indicates the extent to which a company strives to reduce its tax liabilities [15, 25]. Companies often adopt tax avoidance strategies to enhance profitability. These strategies may involve utilizing legal tax loopholes, transfer pricing practices, or investing in low-tax jurisdictions. Profitability is also measured using various ratios to assess the financial health of the business [16, 26]. Metrics such as GPM and NPM reflect how efficiently a company converts revenue into profit by managing production costs and overall expenses. ROA and ROE evaluate how effectively the company utilizes its assets and shareholders' equity to produce earnings. ROS and ROCE offer insights into operational performance and the efficient use of total capital in generating returns. ROI gauges the profitability of investments, while EPS indicates how much profit is attributed to each share, providing a clear view of shareholder value.

2.3 Leverage

While leverage allows companies or investors to increase potential profits, it also raises financial risk [11, 24]. Financial leverage involves debt payments, while operating leverage relates to fixed costs within a business [11, 25]. Leverage ratios are measures of how much a company is financed by debt and reflect the sources of funding used for its operations [11, 26]. The higher the leverage ratio, the greater the proportion of debt compared to equity, which leads to higher interest expenses [12, 27]. This, in turn, reduces the company's profit and may result in tax avoidance strategies being employed.

According to Fred Watson, several consequences may arise from leverage. First, creditors expect equity, or the owner's funds, to serve as collateral. In other words, creditors bear a smaller business risk since the equity capital is used as a safeguard [13, 28]. Second, raising funds through debt allows the owner to retain control over the company, keeping managerial authority intact.

2.4 Hypothesis Development

Profitability on Tax Avoidance

Profitability ratios are used to evaluate a company's capacity to generate profits and assess the efficiency of its management operations [29]. Key indicators of profitability include sales and income from investments [14, 32]. These ratios essentially represent the overall effectiveness of the business [14, 29]. Consequently, profitability directly influences the tax obligations a company faces. Firms with higher profitability are likely to incur larger tax liabilities, whereas companies with lower profitability will generally face reduced tax burdens [14, 31].

H1: Profitability has a positive impact on tax avoidance.

Firm Size on Tax Avoidance

This is because larger companies often have greater access to financial resources and tax experts, enabling them to more effectively structure their finances to minimize their tax burdens [14]. Moreover, large firms often have the capacity to navigate complex tax regulations and utilize sophisticated tax strategies, which may be unavailable to smaller firms due to resource constraints.

In addition, larger companies tend to have more flexibility in their operations, allowing them to adjust their financial structures and operations to exploit tax loopholes or incentives more efficiently [18, 30]. This greater capacity to manage their tax affairs can lead to a higher level of tax avoidance compared to smaller organizations, which may face greater limitations in optimizing their tax positions [17, 28].

H2: Company size has a positive effect on tax avoidance.

Leverage on Tax Avoidance

Many studies in corporate finance focus on the relationship between leverage and tax avoidance [17, 29]. Companies with higher financial leverage may have a stronger incentive to engage in tax avoidance strategies in order to optimize their capital structure and reduce the tax burden they face [16, 33].

This relationship is often attributed to the fact that companies with higher leverage have larger interest payments, which can be deducted from taxable income. As a result, these companies may be motivated to structure their finances in a way that minimizes their tax obligations. Additionally, leveraging debt can provide companies with the necessary financial flexibility to explore various tax avoidance strategies, such as shifting profits or using tax shields.

H3: Leverage has a positive impact on tax avoidance.

3 Research Methodology

This research focuses on food and beverage companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. Data for the study is obtained from the IDX website, using internet technology for data collection. Data combination of cross-sectional and time-series. Cross-sectional data is gathered at a single point in time, while time-series data captures consistent information over several periods to analyze

trends and changes in the subject matter. The research is conducted from April 2024 until its completion.

Purposive sampling is utilized to select companies based on specific criteria to ensure the sample is representative. The selection criteria include: 1) food and beverage companies listed on the IDX, 2) companies that reported no financial losses between 2019 and 2023, and 3) companies that published complete annual reports between December 31, 2018, and December 31, 2022. To ensure accurate and reliable data analysis, the study uses SPSS software for processing, which aids in modeling relationships and conducting the necessary statistical tests.

4 Results and Discussion

4.1 Data Description

Table 1. Descriptive Statistics

	Min	Max	M	SD
Profitability (ROA)	.05	18.23	8.1807	4.48360
Firm Size	31.62	30.80	22.2194	6.11450
Leverage (DER)	.09	.73	.3764	.17777
Tax Avoidance (ETR)	-.28	.81	.1861	.17613

Source: Data Processed (2025)

Descriptive statistics based on 95 observations show notable variability in financial characteristics among food and beverage firms listed on the Indonesia Stock Exchange. The average ROA was 8.18, reflecting differences in asset profitability. Firm size varied widely (mean = 22.22), while leverage (mean = 0.3764) showed moderate dispersion. The effective tax rate (mean = 0.1861) ranged from -0.28 to 0.81, suggesting potential tax refunds or deferrals in some cases. Overall, the data indicate diverse financial and tax strategies within the sample.

4.2 Multiple Linear Regression Analysis Test

Table 2. Results of Multiple Linear Regression Analysis Coefficients^a

		UC		SC	
		B	Std. Error	B	T
1	(Constant)	.052	.091		.572
	Profitability (ROA)	-.008	.005	-.204	-1.744
	Firm Size	.004	.003	.153	1.529
	Leverage (DER)	.271	.113	.274	2.408

Source: Data Processed (2025)

Table 2 presents the t-test results for each independent variable's effect on tax avoidance. The ROA shows a significance value of 0.085, both indicating that profitability does not have a statistically significant influence on tax avoidance. Therefore, H1 which proposes that profitability affects tax avoidance, is rejected. Similarly, firm size has a significance level of 0.130 and a t-value of 1.529, both below the required statistical thresholds, leading to the rejection of H2. This suggests that variations in company size do not significantly explain differences in tax avoidance behavior. In contrast, the leverage variable (DER) shows a significant result, with a p-value of 0.018 and a t-value of 2.408, exceeding the critical t-value. This supports the H3, indicating that firms with higher leverage are more likely to engage in tax avoidance, likely due to interest expense deductions that reduce taxable income.

5 Discussion

This study's core result that leverage is positively and significantly associated with tax avoidance while profitability and firm size are not aligns with the tax-shield view of capital structure and the broader "debt bias" in corporate finance. Interest deductibility reduces taxable income, creating a mechanical pathway through which more highly levered firms can lower their effective tax rates (ETR). Prior work links financing choices to tax incentives and documents how debt use interacts with anti-base-erosion regimes, such as thin-capitalization and anti-profit-shifting rules policy levers that are also salient in the Indonesian context [20, 8, 3]. That the leverage–ETR association remains positive in food and beverage issuers during 2019–2023 suggests that despite constraints from anti-avoidance policy debt-based tax shields remained economically meaningful across the sample period.

By contrast, the absence of a statistically significant profitability effect on tax avoidance admits at least two complementary explanations. First, public firms with strong performance face capital-market scrutiny and reputational costs that can steer them toward "conforming" (lower-visibility) forms of tax minimization rather than aggressive arrangements that would noticeably depress reported ETRs [2]. Second, ETR is a noisy proxy for avoidance over short horizons: it can be distorted by loss carryforwards, one-off items, pandemic-era reliefs, and book–tax reconciliation choices, all of which were plausibly in play during 2019–2023 [14, 31]. Systematic reviews also emphasize that tax-avoidance determinants are heterogeneous and context-dependent; governance, enforcement intensity, and policy design often overshadow the direct, monotonic link one might expect between profitability and measured ETR [14, 34].

The non-result for firm size is likewise interpretable as the netting out of opposing forces. Larger issuers unquestionably possess resources and advisory capacity to structure taxes efficiently; however, they also operate under tighter public, audit, and regulatory oversight, with Indonesia's e-government advances lowering compliance frictions while raising the state's monitoring capacity [26]. Empirical evidence from Indonesia further indicates that administrative quality and enforcement improvements more than nominal rate changes shape corporate tax behavior, which can compress size-

based dispersion in observed ETRs [3]. In a high-visibility consumer sector, stakeholder and reputational pressures likely reinforce this disciplining effect, limiting the marginal advantage that sheer scale might otherwise confer.

Substantively, the sectoral evidence strengthens the view that capital structure is a primary channel for corporate tax behavior in emerging markets. Taxes affect financing preferences, and financing decisions in turn respond to anticipated policy and enforcement constraints [22]. The persistence of a leverage–ETR link argues for continued calibration of thin-capitalization safeguards and for transfer-pricing documentation standards that target not just headline debt ratios but also intra-group funding structures that can substitute for plain-vanilla borrowing [8, 13]. For managers, the implication is that leverage choices are not only cost-of-capital decisions; they are also tax-risk and governance decisions. Any incremental tax shield must be weighed against compliance costs, potential litigation, and reputational exposure considerations that are increasingly embedded in ESG-oriented assessments of corporate conduct [15]. On the policy side, risk-based audit profiling that places heightened attention on high-DER filers, coupled with cooperative-compliance programs that reward transparency, can reduce arbitrage space without imposing undue burdens on already compliant firms [12, 26].

Several limitations point to productive avenues for future work. The study relies on ETR as the sole proxy; complementing it with cash ETR, long-run ETR, or book–tax differences would improve construct validity and reduce sensitivity to transitory accounting effects [14]. Potential endogeneity between leverage and tax outcomes (e.g., low-ETR firms enjoying cheaper debt) suggests instrumental-variables or dynamic panel approaches. Finally, extending the specification to include governance (e.g., audit committee strength, internal control quality), market-pressure variables (e.g., analyst coverage, institutional ownership), and enforcement salience would help explain why profitability and size did not emerge as first-order drivers in this context [26, 3, 12]. Overall, the evidence indicates that tax avoidance in Indonesian food and beverage issuers is multi-causal, but during the observation window the capital-structure channel was the most active lever shaping observed ETRs.

6 Conclusions

Based on the analysis findings, the study concludes that two of the proposed hypotheses were supported. The research indicates that profitability does not significantly influence tax avoidance, suggesting that companies with high profits do not necessarily engage in tax avoidance, nor do companies with low profits always avoid taxes. This could be particularly true for public companies, as they tend to avoid tax practices to maintain their reputation and investors' trust. Furthermore, company size does not have a significant impact on tax avoidance, meaning the scale of a business does not influence its tendency to engage in tax avoidance. Large companies usually have better-organized compliance systems that are more closely monitored and regularly audited by the government, while small companies may lack the resources or knowledge to implement aggressive tax avoidance strategies. On the other hand, leverage significantly affects

tax avoidance, as the use of debt is not only a funding tool but also part of tax planning strategies that reduce tax liabilities, given that interest expenses are tax-deductible.

The research does have certain limitations that should be addressed in future studies. As a result, the findings of this study cannot be generalized across different sectors or industries. Future research should expand the sample size and consider alternative research methods or develop more accurate and valid instruments. Additionally, future research could provide more practical recommendations for industry practitioners.

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