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Examining the Effect of Related-Party Transactions, Thin Capitalization, and Capital Intensity on Firms' Tax Avoidance Behaviour: The Moderating Effect of Sales Growth

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Abstract---This study aims to examine the effects of related-party transactions, thin capitalization, and capital intensity on tax avoidance, as well as to evaluate the moderating role of sales growth. The research is grounded in agency theory and positive accounting theory, employing a quantitative approach using Moderated Regression Analysis. The sample consists of 442 firms selected through purposive sampling, yielding a total of 2,210 firm-year observations from manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals subsectors listed on the Indonesia Stock Exchange (IDX) during the period 2019–2023. The findings reveal that related-party transactions, thin capitalization, and capital intensity have a positive effect on tax avoidance. Furthermore, sales growth is found to weaken the effects of related-party transactions, thin capitalization, and capital intensity on tax avoidance. This study provides implications supporting both agency theory and positive accounting theory in explaining the determinants of corporate tax avoidance strategies.

Keywords---Capital Intensity, Related-Party Transactions, Sales Growth, Tax Avoidance, Thin Capitalization.

Introduction

Taxation represents the primary source of government revenue and contributes the largest proportion to the Indonesian state budget (Stiawan & Sanulika, 2021; Djatnicka et al., 2022). Data from Statistics Indonesia indicate fluctuations in tax and non-tax revenues during 2019–2023, with the manufacturing sector—alongside financial services, trade, and other related industries—being among the largest contributors to national tax income (Klikpajak, 2024). The government's implementation of the self-assessment system is intended to enhance tax compliance; however, the system also creates opportunities for taxpayers to legally minimize their tax liabilities (Wicaksono, 2019). Although tax avoidance is permitted under prevailing regulations, it generates risks for firms and reduces potential state revenue, as evidenced by high-profile cases such as the Standard Chartered fund transfers amounting to Rp 18.9 trillion (Cobham et al., 2021; ekonomi.kompas.com).

Tax avoidance practices are also prevalent in the manufacturing sector, including the widely discussed case involving PT Indofood Sukses Makmur Tbk, which allegedly engaged in tax-minimizing restructuring through business segmentation (Alamsyah et al., 2023; www.gresnews.com). Tax avoidance is generally defined as an effort to reduce tax obligations without violating tax laws (Rohmatunnisa, 2022; Saputri & Kamil, 2021). Indonesia's relatively low tax ratio compared to neighboring ASEAN countries and OECD averages (Revenue Statistics in Asia and the Pacific, 2023) reflects ongoing concerns regarding profit shifting, particularly through related-party transactions (Fuest et al., 2010; OECD, 2013). The 2018 MAP Statistics further reveal a nearly 20% increase in

related-party cases compared to 2017, reinforcing findings that affiliated-party manipulation is a key mechanism of corporate tax avoidance (Amidu et al., 2019).

Thin capitalization also constitutes a common tax avoidance mechanism, as high leverage enables firms to benefit from tax-deductible interest expenses that function as a tax shield (OECD, 2012; Falbo & Firmansyah, 2018). Highly leveraged firms are likewise more likely to engage in aggressive tax minimization strategies (Maulana et al., 2018). Another determinant is capital intensity, as depreciation expenses on non-current assets are deductible under the Income Tax Law (Law No. 6 of 2023), thereby influencing corporate tax strategies (Maulana et al., 2018). Nevertheless, empirical findings on the relationships between related-party transactions, thin capitalization, capital intensity, and tax avoidance remain inconsistent across prior studies (Amidu et al., 2019; Herianti & Chairina, 2019; Fadillah & Lingga, 2021; Utami, 2021; Dwiyantri & Jati, 2019; Kasim & Saad, 2019; Marlinda et al., 2020).

This study further incorporates sales growth as a moderating variable, given its relevance to firms' profitability management, revenue sustainability, and tax-related decision-making—particularly in contexts involving related-party arrangements (Rizki & Fuadi, 2019). However, prior research on the relationship between sales growth and tax avoidance also presents varied and conflicting results (Rizki & Fuadi, 2019; Nugraha & Mulyani, 2019; Puspitasari et al., 2021; Oktamawati, 2017).

In view of the inconsistent findings and the importance of tax avoidance issues in Indonesian public companies, this study aims to examine the effects of related-party transactions, thin capitalization, and capital intensity on tax avoidance, as well as to assess the moderating role of sales growth. The analysis focuses on manufacturing firms listed on the Indonesia Stock Exchange during 2019–2023, as this sector represents one of the largest contributors to national tax revenues.

Literature Review and Hypothesis Development

Amidu et al. (2019) find that related-party transactions have a positive effect on tax avoidance. Similarly, Desai et al. (2006), argue that related-party dealings across different tax jurisdictions provide substantial opportunities for firms to engage in tax minimization. Shackelford et al. (2007), further emphasize that the complexity of affiliated-party transactions, particularly those involving intangible assets, complicates the determination of taxable income shifted across borders. Such transactions enable managers to reduce corporate tax burdens through profit transfers to loss-making entities within a business group or by channeling transactions to low-tax or zero-tax jurisdictions, commonly known as tax havens (Herianti & Chairina, 2019).

Under agency theory, information asymmetry allows managers to exploit affiliated-party mechanisms to conceal tax avoidance activities from shareholders. Empirical evidence indicates that most firms engage in tax avoidance through related-party arrangements (Amidu et al., 2019). Consistent positive effects of related-party transactions on tax avoidance are also documented by Taylor & Richardson (2012), Herianti & Chairina (2019), Maulana et al. (2018), Suntari & Mulyani (2020), and Nadhifah & Arif (2020).

H1: Related-party transactions have a positive effect on tax avoidance.

Prior studies show that thin capitalization positively affects tax avoidance (Taylor & Richardson, 2012). Thin capitalization practices are often employed in conjunction with tax haven utilization to increase transaction complexity and enhance tax minimization opportunities. From an agency theory perspective, managers may prefer debt financing—particularly debt from related creditors—because shareholder monitoring is generally more stringent than creditor oversight, motivating managerial opportunism despite potential default risks. Dyreng et al. (2008), show that tax-avoiding firms exhibit higher leverage than those that do not engage in such practices.

Evidence from Falbo & Firmansyah (2018), Nadhifah & Arif (2020), Fathurrahman et al. (2021), and Olivia & Dwimulyani (2019), demonstrates that greater thin capitalization increases firms' tax avoidance behavior because interest expenses generate a tax shield.

H2: Thin capitalization has a positive effect on tax avoidance.

Capital intensity reflects the proportion of non-current assets within total corporate assets (Maulana et al., 2018). According to agency theory, differing interests between principals and agents may motivate managers to exploit depreciation expenses on non-current assets to reduce taxable income. Firms with higher capital intensity tend to exhibit lower effective tax rates due to substantial depreciation costs, thereby increasing their incentives for tax avoidance (Dwiyantri & Jati, 2019).

Several studies, including those by [Dwiyanti & Jati \(2019\)](#), [Kasim & Saad \(2019\)](#), [Aniatun et al. \(2022\)](#), and [Maulana et al. \(2018\)](#), confirm that firms with higher proportions of non-current assets are more likely to engage in tax avoidance.

H3: Capital intensity has a positive effect on tax avoidance.

Related-party transactions allow firms to reduce tax expenditures and maintain profitability. In the context of agency theory, managers may shift profits to low-tax jurisdictions to meet personal incentives such as bonuses. Sales growth reflects a firm's operational strength and influences the extent to which managers rely on tax avoidance. When sales growth is high, managers are less motivated to manipulate taxable income through related-party transactions, as strong earnings can be attributed to genuine operational performance ([Rizki & Fuadi, 2019](#)).

Empirical evidence indicates that sales growth weakens the positive association between related-party transactions and tax avoidance ([Permata et al., 2018](#); [Mahanani, 2017](#)).

H4: Sales growth weakens the positive effect of related-party transactions on tax avoidance.

The political cost hypothesis suggests that large and profitable firms face greater scrutiny, influencing their accounting policy choices. Government regulation, such as PMK 169, also establishes limits on deductible debt-to-equity ratios. Under agency theory, managers may engage in tax avoidance through thin capitalization to achieve personal goals. However, when sales growth increases, managerial incentives to manipulate taxable income via excessive debt decline, as improved revenues naturally enhance reported performance. Rising sales reduce firms' reliance on tax-saving strategies tied to related-party debt financing.

Prior findings confirm the positive effect of thin capitalization on tax avoidance ([Falbo & Firmansyah, 2018](#); [Olivia & Dwimulyani, 2019](#)), while [Hidayat \(2018\)](#) shows that sales growth negatively influences tax avoidance.

H5: Sales growth weakens the positive effect of thin capitalization on tax avoidance.

Capital intensity influences tax avoidance due to the role of depreciation expenses associated with fixed assets ([Artinasari & Mildawati, 2018](#)). Capital intensity is an important indicator of firms' efficiency in utilizing long-term assets ([Aniatun et al., 2022](#)). Previous studies confirm the link between capital intensity and tax avoidance ([Dwiyanti & Jati, 2019](#); [Kasim & Saad, 2019](#)). Sales growth also plays a role in shaping future funding and investment decisions, which are reflected in capital intensity ratios and potential interactions with thin capitalization strategies ([Rizki & Fuadi, 2019](#)).

H6: Sales growth weakens the positive effect of capital intensity on tax avoidance.

Methods

This study employs a quantitative research design using manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. The analysis is based on secondary data obtained from audited annual financial statements downloaded from the IDX website and the respective corporate websites. The sample was selected using purposive sampling, with criteria that companies must be continuously listed from 2019 to 2023, not delisted during the observation period, and publish complete annual financial statements for all five years.

The study examines the effects of Related-Party Transactions (X1), Thin Capitalization (X2), and Capital Intensity (X3) on Tax Avoidance (Y), with Sales Growth (Z) serving as a moderating variable. Related-party transactions are measured using the index developed by [Amidu et al. \(2019\)](#), thin capitalization is measured using the Maximum Allowable Debt (MAD) Ratio, and capital intensity is assessed through the ratio of tangible non-current assets to total assets. Tax avoidance is measured using the Effective Tax Rate (ETR), while sales growth is calculated as the percentage change in annual sales.

Data analysis begins with the calculation of all research variables, followed by descriptive statistical analysis and classical assumption tests, including normality, multicollinearity, autocorrelation, and heteroscedasticity. Model feasibility is assessed using the F-test, while hypothesis testing is conducted using the t-test at a 5% significance level. The coefficient of determination (Adjusted R²) is used to evaluate the explanatory power of the model. The moderating effect of sales growth is examined through Moderated Regression Analysis (MRA) by incorporating interaction terms between the independent variables and sales growth into the regression equation.

Result and Discussion

Moderated Regression Analysis

This study includes three independent variables—related-party transactions, thin capitalization, and capital intensity—and one dependent variable, tax avoidance, with sales growth serving as the moderating variable. The moderating effects were examined using Moderated Regression Analysis (MRA). The regression results processed using STATA are presented in Table 1.

Table 1
Moderated Regression Analysis Results

Variable	Coef.	Std. Err	t-Statistic	Prob.
(Constant)	-0.9617	0.4546	-2.12	0.034
Related-Party Transactions (TPB)	0.6281	0.1903	3.30	0.001
Thin Capitalization (TC)	0.8962	0.2241	4.00	0.000
Capital Intensity (CI)	2.2615	0.8733	2.59	0.010
Sales Growth (SG)	-0.6161	0.0093	-65.91	0.000
TPB × SG	-0.3950	0.1822	-2.17	0.030
TC × SG	-0.3784	0.0113	-33.44	0.000
CI × SG	-0.6558	0.0172	-38.14	0.000

Secondary Data, 2025

Based on these results, the moderated regression equation can be formulated as follows:

$$\text{ETR} = -0.9617 + 0.6281 \text{ TPB} + 0.8962 \text{ TC} + 2.2615 \text{ CI} - 0.6161 \text{ SG} - 0.3950 (\text{TPB} \times \text{SG}) - 0.3784 (\text{TC} \times \text{SG}) - 0.6558 (\text{CI} \times \text{SG}) + e$$

All variables—including the independent variables, moderating variable, and interaction terms—have p-values below 0.05, indicating a statistically significant effect on tax avoidance (ETR). The interpretation of each coefficient is as follows:

- 1) The constant value of -0.9617 indicates that when all independent variables, the moderating variable, and interaction terms are held constant, the baseline level of tax avoidance (ETR) is -0.9617 .
- 2) The coefficient for related-party transactions ($\beta_1 = 0.6281$) shows a positive effect on tax avoidance, meaning a 1% increase in TPB increases ETR by 0.6281.
- 3) The coefficient for thin capitalization ($\beta_2 = 0.8962$) indicates that a 1% increase in TC increases ETR by 0.8962.
- 4) The coefficient for capital intensity ($\beta_3 = 2.2615$) shows that a 1% increase in CI increases ETR by 2.2615.
- 5) The coefficient for sales growth ($\beta_4 = -0.6161$) reveals that a 1% increase in SG decreases ETR by 0.6161.
- 6) The interaction coefficient TPB × SG ($\beta_5 = -0.3950$) indicates that sales growth weakens the positive effect of related-party transactions on tax avoidance.
- 7) The interaction coefficient TC × SG ($\beta_6 = -0.3784$) indicates that sales growth weakens the positive effect of thin capitalization on tax avoidance.
- 8) The interaction coefficient CI × SG ($\beta_7 = -0.6558$) indicates that sales growth weakens the positive effect of capital intensity on tax avoidance.

Coefficient of Determination (R²)

The coefficient of determination (R²) measures the explanatory power of the independent variables. The results are presented in Table 2.

Table 2
Coefficient of Determination (R²)

R Squared	Adjusted R Square
0.7743	0.7736

Secondary Data, 2025

The Adjusted R² value of 0.7736 indicates that 77.36% of the variation in tax avoidance (ETR) is explained by related-party transactions, thin capitalization, capital intensity, sales growth, and their interaction terms. The remaining 22.64% is explained by other factors not included in this model.

Model Feasibility Test (F-Test)

The F-test evaluates whether the independent variables collectively influence the dependent variable. The results are shown in Table 3.

Table 3
F-Test Results

F statistic (7, 2202)	Probability F
1079.07	0.000

Secondary Data, 2025

The probability value of 0.000 is below the significance level of 0.05, indicating that the overall model is statistically significant. This confirms that the independent variables jointly predict tax avoidance (ETR) effectively.

Hypothesis Testing (Moderated Regression Analysis)

Hypothesis testing was performed using MRA by examining the significance of the t-statistics. A hypothesis is accepted when the probability value is less than 0.05. The results are summarized in Table 4.

Table 4
Hypothesis Testing Results

Variable	Coefficient	t	Probability t	Conclusion
Related-Party Transactions (TPB)	0.6281	3.30	0.001	Positive, Significant
Thin Capitalization (TC)	0.8962	4.00	0.000	Positive, Significant
Capital Intensity (CI)	2.2615	2.59	0.010	Positive, Significant
Sales Growth (SG)	-0.6161	-65.91	0.000	Negative, Significant
TPB × SG	-0.3950	-2.17	0.030	Negative, Significant
TC × SG	-0.3784	-33.44	0.000	Negative, Significant
CI × SG	-0.6558	-38.14	0.000	Negative, Significant

Secondary Data, 2025

Effect of Related-Party Transactions on Tax Avoidance

The t-test results in Table 4 show that the regression coefficient for Related-Party Transactions is 0.6281, with a significance level of 0.001, which is below 0.05, and a positive t-value of 3.30. These results indicate that related-party transactions have a positive and significant effect on tax avoidance among manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors during 2019–2023.

The analysis shows that related-party transactions have a positive effect on tax avoidance, thus Hypothesis 1 is accepted. The positive association implies that the greater the intensity of related-party transactions conducted by a firm, the higher its tendency to engage in tax avoidance. Related-party transactions used for tax avoidance typically involve the manipulation of transfer prices for goods or services among entities within the same corporate group to shift profits to entities located in lower-tax jurisdictions, thereby reducing the group's overall tax burden.

In the context of agency theory, information asymmetry implies that shareholders, as principals, are unable to fully and continuously monitor managerial actions. Related-party transactions undertaken by certain parties within the firm may therefore create opportunities for managers to engage in tax avoidance. Agency theory further suggests that managers are under pressure to meet shareholders' expectations regarding profitability, which may encourage them to manipulate financial reporting and minimize tax liabilities, one indication of which is the use of related-party dealings (Kohtamäki et al., 2019).

These findings are consistent with Amidu et al. (2019), who document a positive effect of related-party transactions on tax avoidance. Herianti & Chairina (2019) state that related-party transactions are used by management to reduce corporate tax burdens, whether through transactions with related parties, shifting profits to

loss-making group entities, or conducting transactions with companies located in tax havens or low-tax jurisdictions. Firms obtain tax incentives when profit shifting occurs from high-tax to low-tax countries. In line with the present study, [Amidu et al. \(2019\)](#) also report that most firms engage in tax avoidance through manipulation of related-party transactions. Similarly, [Taylor & Richardson \(2012\)](#), [Herianti & Chairina \(2019\)](#), [Maulana et al. \(2018\)](#), [Suntari & Mulyani \(2020\)](#), and [Nadhifah & Arif \(2020\)](#) all find that related-party transactions have a positive effect on tax avoidance.

Effect of Thin Capitalization on Tax Avoidance

The t-test results in Table 4 indicate that the regression coefficient for Thin Capitalization is 0.8962, which is positive, with a significance value of 0.000—below the 0.05 threshold—and a positive t-value of 4.00. This demonstrates that thin capitalization has a positive and significant effect on tax avoidance among manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors during 2019–2023.

The results indicate that thin capitalization has a positive effect on tax avoidance, thereby supporting Hypothesis 2. This positive relationship suggests that the higher the level of thin capitalization practiced by a firm, the greater its propensity to engage in tax avoidance. This occurs because interest expenses on debt are tax-deductible, reducing taxable income and thus lowering the firm's tax burden.

From an agency theory perspective, shareholder monitoring tends to be more stringent than creditor monitoring. As a result, managers may prefer to use more debt than is optimal, despite the increased risk of default in the future. The debt in question often refers to borrowings from creditors who have a special relationship with the firm (related-party debt). [Dyreng et al. \(2008\)](#), show that firms engaging in tax avoidance tend to have higher leverage compared with those that do not.

The findings of this study are consistent with [Falbo & Firmansyah \(2018\)](#), [Fathurrahman et al. \(2021\)](#), and [Olivia & Dwimulyani \(2019\)](#), who demonstrate that higher thin capitalization is associated with a greater tendency for firms to use debt as the dominant source of financing, whereby interest expenses provide tax reduction incentives through the tax shield mechanism.

Effect of Capital Intensity on Tax Avoidance

The t-test results in Table 4 show that the regression coefficient for Capital Intensity is 2.261, which is positive, with a significance value of 0.010—below the 0.05 cut-off—and a positive t-value of 2.59. These findings indicate that capital intensity has a positive and significant effect on tax avoidance among manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors during 2019–2023.

The analysis further shows that capital intensity has a positive effect on tax avoidance, thus Hypothesis 3 is accepted. This positive relationship indicates that the higher the capital intensity of a firm, the greater its tendency to engage in tax avoidance. Firms with substantial fixed assets are more likely to seek ways to reduce their tax burden, including by exploiting the depreciation of fixed assets and taking advantage of loopholes in tax regulations ([Huseynov & Klamm, 2012](#)).

Linked to agency theory, the divergence of interests between agents and principals suggests that agents may attempt to maximize reported profits for their own benefit, while principals may receive a smaller share. The difference in interests may motivate managers to strategically use depreciation charges arising from investments in fixed assets to influence the firm's final profit and associated tax liabilities.

These results are in line with [Maulana et al. \(2018\)](#), who report that capital intensity has a positive effect on tax avoidance. Tax avoidance practices tend to be more prevalent among firms with a high proportion of non-current assets. This is due to the lower effective tax rate (ETR) resulting from profit reductions caused by substantial depreciation expenses on non-current assets ([Dwiyanti & Jati, 2019](#)). Empirical evidence from [Dwiyanti & Jati \(2019\)](#), [Kasim & Saad \(2019\)](#), [Aniatun et al. \(2022\)](#), and [Maulana et al. \(2018\)](#), confirms that firms with a low proportion of non-current assets are less likely to engage in tax avoidance because the accounting period is shorter than the economic life of the assets. Conversely, firms with a high proportion of non-current assets are more inclined to minimize taxable income through depreciation-related tax planning, thereby increasing tax avoidance.

Moderating role of sales growth on TPB to ETR

Sales growth significantly moderates the relationship ($p = 0.030$). The interaction term is negative, indicating that sales growth weakens the positive effect of related-party transactions on tax avoidance. This represents quasi-moderation. The results show that sales growth functions as a moderating variable that weakens the positive effect of related-party transactions on tax avoidance. This implies that the higher a firm's sales growth, the weaker the impact of related-party transactions on its tax avoidance practices. In other words, when a firm experiences substantial sales growth, the use of related-party transactions as a tax avoidance mechanism becomes less effective or less necessary.

This finding is consistent with the political cost hypothesis in positive accounting theory, which introduces a political dimension into accounting policy choices. Large and highly profitable firms are subject to greater political scrutiny and potential regulatory costs. In practice, tax authorities often focus on firms' reported sales and profits, and corporate income tax installments (PPh 25) in year t are based on net income reported in year $t-1$, reflecting the government's expectation that firms will improve or at least maintain their profitability.

From an agency theory standpoint, managers (agents) may act in their own interests (e.g., maximizing bonuses) and seek to improve profit performance to obtain personal incentives, one means of which is shifting income to low-tax jurisdictions through related-party transactions. However, sales growth strongly influences a firm's ability to sustain its profits (Rizki & Fuadi, 2019). When sales grow rapidly, the firm demonstrates strong operational performance. Under such conditions, managers are less dependent on tax manipulation tools because high profits can be credibly attributed to genuine sales performance rather than tax-driven income shifting.

This study's findings are consistent with Permata et al. (2018) and Mahanani (2017), who report that sales growth weakens the positive effect of related-party transactions on tax avoidance.

Moderating role of sales growth on TC to ETR

Both the main effect and interaction terms are significant ($p = 0.000$). The negative interaction factor indicates that sales growth weakens the positive effect of thin capitalization on tax avoidance. This represents partial moderation. The results indicate that sales growth acts as a moderating variable that weakens the positive effect of thin capitalization on tax avoidance. This suggests that the higher a firm's sales growth, the weaker the impact of thin capitalization on its tax avoidance practices. Firms experiencing substantial sales growth generally exhibit strong performance and higher profitability, which reduces their reliance on aggressive debt-based tax planning. Consequently, for highly leveraged firms, the effect of thin capitalization on tax avoidance is less pronounced when sales growth is high than when growth is slow.

Agency theory highlights the conflict of interest between principals and agents. Managers may behave opportunistically by engaging in tax avoidance to meet personal performance targets, such as bonuses or favorable performance evaluations. One strategy used is thin capitalization, whereby excessive debt is employed to reduce taxable income through interest expenses. However, when sales growth increases, managerial incentives to pursue tax avoidance via thin capitalization tend to diminish, as strong sales performance allows managers to present favorable financial results without resorting to manipulation of the capital structure. As sales and profits rise, the firm is better positioned to service and repay its related-party debt, and excessive tax-saving behavior can be more easily constrained (Maitriyadewi & Yadnyana, 2022).

These results are consistent with Falbo & Firmansyah (2018) and Olivia & Dwimulyani (2019), who find a positive effect of thin capitalization on tax avoidance, and with Hidayat (2018), who documents a negative relationship between sales growth and tax avoidance.

Moderating role of sales growth on CI to ETR

Both the main effect and interaction terms are significant ($p = 0.000$). Sales growth weakens the positive effect of capital intensity on tax avoidance. This also represents partial moderation. The findings indicate that sales growth acts as a moderating variable that weakens the positive effect of capital intensity on tax avoidance. This means that the positive relationship between capital intensity and tax avoidance becomes weaker as sales growth increases. Firms with high capital intensity tend to engage in tax avoidance; however, when such firms also experience strong sales growth, the impact of capital intensity on tax avoidance is less pronounced than in firms with low or stagnant sales growth.

These results support Aniatun et al. (2022), who state that capital intensity is an important piece of information for investors because it reflects the efficiency of capital utilization. Prior studies on tax avoidance have also shown that capital intensity plays a role in shaping tax avoidance behavior. This is consistent with Dwiyantri & Jati (2019),

who find that tax avoidance practices are influenced by capital intensity. Similarly, [Kasim & Saad \(2019\)](#) report that sales growth acts as a moderating variable that weakens the relationship between capital intensity and tax avoidance, such that the positive effect of capital intensity on tax avoidance diminishes when firms experience high sales growth.

According to [Rizki & Fuadi \(2019\)](#), sales growth also plays a role in firms' future financing decisions, particularly in relation to investment policies reflected in capital intensity ratios and the potential use of thin capitalization. Thus, strong sales growth not only improves operational performance but may also reduce firms' incentives to aggressively exploit capital intensity as a tax avoidance mechanism.

Conclusion

The findings of this study demonstrate that related-party transactions, thin capitalization, and capital intensity each have a positive and significant effect on tax avoidance among manufacturing firms in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors during the 2019–2023 period. Furthermore, sales growth is shown to moderate these relationships by weakening the positive effects of all three variables on tax avoidance. This indicates that firms with higher sales growth are less likely to rely on related-party arrangements, excessive debt structures, or capital-intensive tax planning strategies to minimize tax liabilities. Based on these findings, manufacturing firms are encouraged to enhance transparency in financial reporting and tax practices, as well as strengthen risk management related to tax avoidance to maintain investor trust and ensure business sustainability. For future researchers and the advancement of accounting scholarship, it is recommended to incorporate additional financial ratios and employ more specific samples—such as focusing exclusively on the healthcare or mining subsectors—to generate more comprehensive and robust empirical results.

Managerial Implication

The findings of this study offer important managerial implications for manufacturing companies in the health care, basic materials, industrials, consumer cyclicals, and consumer non-cyclicals sectors listed on the Indonesia Stock Exchange (IDX). The evidence that related-party transactions, thin capitalization, and capital intensity positively influence tax avoidance, together with the moderating effect of sales growth in weakening these relationships, underscores the need for managers to oversee corporate transaction structures and financing policies more prudently. Theoretically, these results align with Positive Accounting Theory, particularly the Political Cost Hypothesis, which posits that firms choose accounting policies—including tax avoidance strategies—based on political cost considerations and regulatory pressures.

Practically, firms should enhance transparency in related-party transactions, avoid excessive reliance on affiliated-party debt that may trigger thin capitalization issues, and closely monitor the utilization of fixed assets that can be exploited for depreciation-based tax planning. Managers should also consider the role of sales growth, as higher revenue performance can naturally reduce incentives to engage in aggressive tax avoidance practices. Strengthening corporate governance, internal controls, and tax risk management will help firms minimize tax avoidance behavior while maintaining regulatory compliance, investor confidence, and long-term business sustainability.

References

- Alamsyah, C. A., & Romadhina, A. P. (2023). The Influence Of Institutional Ownership, Executive Characteristics, And Fixed Asset Intensity On Tax Avoidance.
- Amidu, M., Coffie, W., & Acquah, P. (2019). Transfer pricing, earnings management and tax avoidance of firms in Ghana. *Journal of Financial Crime*, 26(1), 235-259.
- Aniatun, N., Perwitasari, D., & Pramitasari, T. D. (2022). Pengaruh capital intensity dan thin capitalization terhadap nilai perusahaan dengan tax avoidance sebagai variabel intervening pada perusahaan otomotif yang terdaftar di BEI periode 2017-2020. *Jurnal Mahasiswa Entrepreneurship (JME)*, 1(2), 302-317.
- Artinasari, N., & Mildawati, T. (2018). Pengaruh Profitabilitas, Leverage, Likuiditas, Capital Intensity Dan Inventory Intensity Terhadap Tax Avoidance. *Jurnal Ilmu dan Riset Akuntansi (JIRA)*, 7(8).
- Cobham, A., Garcia-Bernardo, J., Jansky, P., & Palansky, M. (2021). Statistical Measurement of Illicit Financial Flows in Sustainable Development Goals: Tax Avoidance by Multinational Corporations.
- Desai, H., Hogan, C. E., & Wilkins, M. S. (2006). The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review*, 81(1), 83-112.

- Djatnicka, E. W., Purba, J., Ritonga, D., & Andriyani, M. (2022). Penghindaran pajak pada perusahaan property dan real estate yang terdaftar di Bursa Efek Indonesia (BEI) periode 2016-2019. *Jurnal Akuntansi Bisnis Pelita Bangsa*, 7(01), 75-95.
- Dwiyanti, I. A. I., & Jati, I. K. (2019). Pengaruh profitabilitas, capital intensity, dan inventory intensity pada penghindaran pajak. *E-Jurnal Akuntansi*, 27, 2293.
- Dyrenge, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *The accounting review*, 83(1), 61-82.
- Fadillah, A. N., & Lingga, I. S. (2021). Pengaruh Transfer Pricing, Koneksi Politik dan Likuiditas Terhadap Agresivitas Pajak (Survey Terhadap Perusahaan Pertambangan yang Terdaftar di BEI Tahun 2016-2019). *Jurnal Akuntansi*, 13(2), 332-343.
- Falbo, T. D., & Firmansyah, A. (2018). Thin capitalization, related party transactions aggressiveness, and tax avoidance. *Indonesian Journal of Accounting and Governance*, 2(1), 1-28.
- Fathurrahman, I., Andriyanto, W. A., & Sari, R. D. P. (2021). Pengaruh Kepemilikan Institusional, Komite Audit, dan Thin Capitalization Terhadap Tax Avoidance. *Jurnal Akunida*, 7(2), 205-216.
- Fuest, C., Niehues, J., & Peichl, A. (2010). The redistributive effects of tax benefit systems in the enlarged EU. *Public Finance Review*, 38(4), 473-500.
- Herianti, E., & Chairina, S. W. (2019). Does Transfer Pricing Improve the Tax Avoidance through Financial Reporting Aggressiveness?. *KnE Social Sciences*, 357-376.
- Hidayat, W. W. (2018). Pengaruh profitabilitas, leverage dan pertumbuhan penjualan terhadap penghindaran pajak. *Jurnal Riset Manajemen Dan Bisnis*, 3(1), 19-26.
- Huseynov, F., & Klamm, B. K. (2012). Tax avoidance, tax management and corporate social responsibility. *Journal of Corporate Finance*, 18(4), 804-827. <https://doi.org/10.1016/j.jcorpfin.2012.06.005>
- Kasim, F. M., & Saad, N. (2019). Determinants of corporate tax avoidance strategies among multinational corporations in Malaysia. *International Journal of Public Policy and Administration Research*, 6(2), 74-81.
- Kohtamäki, M., Heimonen, J., & Parida, V. (2019). The nonlinear relationship between entrepreneurial orientation and sales growth: The moderating effects of slack resources and absorptive capacity. *Journal of Business Research*, 100, 100-110. <https://doi.org/10.1016/j.jbusres.2019.03.018>
- Mahanani, R. M. (2017). Pengaruh nilai tukar, suku bunga, inflasi, GDP dan corporate tax rate terhadap struktur modal perusahaan sektor infrastruktur, utilitas dan transportasi yang terdaftar di bursa efek Indonesia tahun 2011-2015. *Jurnal Ilmu Manajemen (JIM)*, 5(3).
- Maitriyadewi, N. L. R. P., & Yadnyana, I. K. (2022). Factors impact in tax avoidance practices before and during the COVID-19 pandemic. *International Journal of Business, Economics and Management*, 5(4), 305-315. <https://doi.org/10.21744/ijbem.v5n4.1984>
- Marlinda, D. E., Titisari, K. H., & Masitoh, E. (2020). Pengaruh GCG, profitabilitas, capital intensity, dan ukuran perusahaan terhadap tax avoidance. *Ekonomis: Journal of Economics and Business*, 4(1), 39-47.
- Maulana, M., Marwa, T., & Wahyudi, T. (2018). The effect of related party transactions, capital intensity and financial distress on tax avoidance with firm size as moderating variables. *Modern Economics*, 11(1), 122-128.
- Nadhifah, M., & Arif, A. (2020). Transfer pricing, thin capitalization, financial distress, earning management, dan capital intensity terhadap tax avoidance dimoderasi oleh sales growth. *Jurnal Magister Akuntansi Trisakti*, 7(2), 145-170.
- Nugraha, M. I., & Mulyani, S. D. (2019). Peran leverage sebagai pemediasi pengaruh karakter eksekutif, kompensasi eksekutif, capital intensity, dan sales growth terhadap tax avoidance. *Jurnal Akuntansi Trisakti*, 6(2), 301-324.
- Oktamawati, M. (2017). Pengaruh karakter eksekutif, komite audit, ukuran perusahaan, leverage, pertumbuhan penjualan, dan profitabilitas terhadap tax avoidance. *Jurnal Akuntansi Bisnis*, 15(1), 23-40.
- Olivia, I., & Dwimulyani, S. (2019). Pengaruh thin capitalization dan profitabilitas terhadap penghindaran pajak dengan kepemilikan institusional sebagai variabel moderasi. In *Prosiding Seminar Nasional Pakar* (pp. 2-54).
- Permata, A. D., Nurlaela, S., & Wahyuningsih, E. M. (2018). Pengaruh size, age, profitability, leverage dan sales growth terhadap tax avoidance. *Jurnal Akuntansi Dan Pajak*, 19(01), 10-20.
- Puspitasari, E., Sudiyatno, B., Hartoto, W. E., & WIDATI, L. W. (2021). Net interest margin and return on assets: A Case Study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(4), 727-734.
- Rizki, M. Q. A., & Fuadi, R. (2019). Pengaruh Karakter Eksekutif, Profitabilitas, Sales Growth Dan Corporate Social Responsibility Terhadap Tax Avoidance Pada Perusahaan Non-Keuangan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2011-2015. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, 4(3), 547-557.
- Rohmatunnisa, L. D. (2022). Pola Perilaku Pelaku Usaha dalam Penghindaran Kewajiban Pajak (Tax Avoidance). *RISTANSI: Riset Akuntansi*, 3(1), 63-78.

- Saputri, I. P., & Kamil, I. (2021). Praktik penggelapan pajak (tax evasion) dipengaruhi oleh faktor sistem perpajakan, keadilan pajak, diskriminasi dan deteksi kecurangan (studi kasus pada RS jantung dan pembuluh darah harapan kita dan RS anak dan bunda Harapan Kita). *Jurnal Perspektif Manajerial Dan Kewirausahaan (JPMK)*, 1(2), 148-163.
- Stiawan, H., & Sanulika, A. (2021). Pengaruh Profitabilitas, Ukuran Perusahaan Dan Likuiditas Terhadap Agresivitas Pajak Dengan Corporate Social Responsibility Sebagai Variabel Moderator. In *Conference on Economic and Business Innovation (CEBI)* (pp. 906-918).
- Suntari, M., & Mulyani, S. D. (2020, April). Pengaruh transfer pricing dan thin capitalization terhadap tax aggressiveness dimoderasi oleh ukuran perusahaan. In *Prosiding Seminar Nasional Pakar* (pp. 2-7).
- Taylor, G., & Richardson, G. (2012). International corporate tax avoidance practices: Evidence from Australian firms. *The International Journal of Accounting*, 47(4), 469-496. <https://doi.org/10.1016/j.intacc.2012.10.004>
- Utami, S. (2021). Pengaruh ROA, Leverage dan Ukuran Perusahaan Terhadap Tax Avoidance Pada Perusahaan Sub-Sektor Otomotif dan Komponen Di BEI Periode Tahun 2012-2018. *Jurnal Akuntansi, Perpajakan Dan Auditing*, 2(1), 73-88.
- Wicaksono, B. W. (2019). Pengaruh, Return Onasset, Current Ratio, Earning Per Share, Dan Debt Equity Ratio Terhadap Return Saham Pada Perusahaan Property Dan Real Estateyang Terdaftar Di Bursa Efek Indonesia Tahun 2015–2017. *ESENSI: Jurnal Manajemen Bisnis*, 22(1), 64-81.