

The Effect of Profitability and Leverage on Tax Avoidance (A Case Study on Consumer Non-Cyclicals Manufacturing Companies Listed on the Indonesia Stock Exchange Period 2021-2024)

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Abstract

This study aims to empirically examine the effect of profitability and leverage on tax avoidance practices. The object of this research focuses on manufacturing companies included in the consumer non-cyclicals sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2024 period. Sampling was conducted using the purposive sampling method, resulting in a final sample of 51 companies with a total of 204 observations. The method used for data analysis is panel data regression analysis with a Random Effect Model (REM) approach estimated using the Generalized Least Square (GLS) method via Eviews version 13 software. The measurement of independent variables relies on the Return On Assets (ROA) indicator for Profitability and the Debt to Equity Ratio (DER) for Leverage, while tax avoidance is measured using the Cash Effective Tax Rate (CETR). The results of hypothesis testing indicate that partially, profitability (ROA) has a positive effect on tax avoidance practices. On the other hand, leverage (DER) is proven to have no significant effect on tax avoidance practices.

Keywords: Profitability, Leverage, Tax Avoidance

Introduction

Taxes are the main fiscal instrument in the structure of Indonesia's State Revenue and Expenditure Budget (APBN) to fund national development. However, there is a difference in objectives between government authorities who want to maximize revenue, and company management who considers taxes as an expense that reduces profitability (Khairunnisa et al., 2023). This misalignment encourages management to conduct tax planning, one of which is through tax avoidance practices by legally exploiting regulatory weaknesses (grey areas) (Nursari & Nazir, 2023).

This effort to minimize tax burdens is also influenced by the dynamics of tax regulations. Through Law Number 7 of 2021 concerning the Harmonization of Tax Regulations (UU HPP), pemerintah menetapkan tarif Pajak Penghasilan (PPh) Badan sebesar 22% mulai tahun 2022. the government set the Corporate Income Tax (PPh) rate at 22% starting in the 2022 tax year. The variations in incentives and facilities during this regulatory transition period indirectly create opportunities for companies to arrange their cost structures to obtain lower rates (Direktorat Jenderal Pajak, 2025).

Indications of tax avoidance practices can be measured using the Cash Effective Tax Rate (CETR), which projects the ratio between the cash paid for taxes and the profit before tax. A lower CETR value indicates a high probability of tax avoidance (Shaqira et al., 2025). Based on the 22% Corporate Income Tax rate, the following are consumer non-cyclicals manufacturing companies that have a CETR value below 0.22 (22%), indicating an effort to minimize the tax burden so that the actual cash paid for taxes is smaller than the proportion of their profit before tax:

Table 1. CETR of Sample Companies (2021-2024)

Company Code	Company Name	2021	2022	2023	2024
ADES	Akasha Wira International Tbk.	0,171	0,177	0,223	0,189
AMRT	Sumber Alfaria Trijaya Tbk.	0,183	0,189	0,187	0,223
BOBA	Formosa Ingredient Factory Tbk	0,162	0,390	0,124	0,160
BUDI	Budi Starch & Sweetener Tbk.	0,113	0,184	0,202	0,537
CAMP	Campina Ice Cream Industry Tbk	0,145	0,210	0,209	0,180
CLEO	Sariguna Primatirta Tbk.	0,173	0,199	0,149	0,190
FAPA	FAP Agri Tbk.	0,075	0,125	0,787	0,150
KMDS	Kurniamitra Duta Sentosa Tbk.	0,126	0,256	0,188	0,200
MIDI	Midi Utama Indonesia Tbk.	0,219	0,218	0,205	0,257
PSGO	Palma Serasih Tbk.	0,015	0,097	0,097	0,290
SKLT	Sekar Laut Tbk.	0,107	0,290	0,206	0,177
STTP	Siantar Top Tbk.	0,207	0,177	0,176	0,153
TAPG	Triputra Agro Persada Tbk.	0,110	0,093	0,301	0,073

Source: Processed Secondary Data, 2026

Based on Table 1, the majority of CETR values in the 13 sample companies are consistently below the normative tariff regulation of 22%. Companies such as CAMP, CLEO, and STTP were constantly below 0.22 for four consecutive years, while other entities such as PSGO (1.5%) and FAPA (7.5%) in 2021 recorded highly extreme cash tax payment percentages. This low CETR value during the implementation period of the UU HPP serves as empirical evidence reflecting situational tax avoidance practices in consumer non-cyclicals manufacturing companies.

According to previous research, tax avoidance practices are generally driven by various factors, including profitability and leverage (Arisandi & Kuntadi, 2024). Companies with high profitability also

have high net income (Praystya & Anggrainie, 2024). This rational condition encourages management to manage their tax payments in such a way as to maximize net income (Adi & Frana, 2024).

Besides profitability, the debt structure or leverage is also believed to play a crucial role in influencing the intensity of a company's tax avoidance. Leverage indicates the proportion of debt relied upon by the company to finance its main operational assets. The greater the external funding, the higher the interest expense that can be deducted from taxable income (Nursophia et al., 2023).

Previous research regarding the factors of profitability and leverage on tax avoidance still shows inconsistent results. A study by Tefbana et al., (2025) and Arisandi & Kuntadi (2024) found that profitability and leverage significantly affect tax avoidance. Conversely, Adi & Frana (2024) stated that profitability has no effect, while Nursophia et al., (2023) actually found a negative effect of profitability.

This inconsistency in the literature motivates this research to re-examine the tax avoidance phenomenon by emphasizing novelty during the full implementation transition period of the UU HPP from 2021-2024. The object of consumer non-cyclicals manufacturing companies was specifically chosen considering that the manufacturing sector is the most dominant tax contributor with a portion of 25.8% of national tax revenue (Kemenkeu, 2024). In addition, the capital-intensive operational characteristics of this sector provide high flexibility for management in managing cost burdens for legal tax efficiency (Shaqira et al., 2025).

Theoretical Framework

The main theory underlying this research is the Agency Theory initiated by Jensen & Meckling (1976). This theory explains the dynamics of conflict of interest triggered by differing objectives between the government as the principal and company management as the agent. In the context of taxation, management tends to minimize the tax burden to optimize profits, while tax authorities focus on maximizing state cash receipts.

According to Law Number 28 of 2007 Article 1 No.1, tax is understood as: "A mandatory contribution to the state owed by an individual or entity that is compelling based on the Law, with no direct compensation received, and used for state purposes for the greatest prosperity of the people.". One way management responds to this mandatory burden is through tax avoidance practices, namely tax planning activities to legally reduce the burden. This practice is generally implemented by exploiting legal loopholes (grey areas) in the applicable tax laws and regulations (Sari, 2016).

The level of tax avoidance in this study is measured using the Cash Effective Tax Rate (CETR) instrument because this indicator focuses directly on the actual nominal cash deposited to the state. Referring to the concept of Hanlon & Heitzman (2010), the indication of aggressiveness in tax avoidance practices is inversely proportional to the CETR value. The lower the calculated CETR value falls below the corporate tax rate provision (22%), the higher the level of tax avoidance realized by the entity.

From the perspective of financial performance, profitability is a crucial measure to evaluate how efficiently management operates in utilizing all its assets to generate profits (Kasmir, 2021). This study

uses the Return On Assets (ROA) proxy because it is considered the most comprehensive in representing the efficiency and real profit level of the entity (Brigham & Houston, 2019). An extremely high level of profit potentially becomes the main driver for management to manipulate its taxes in order to protect that net profit.

In addition to profitability, external funding structure projected through Leverage is also an important instrument to assess the extent to which company assets are financed by debt (Kasmir, 2021). Measurement on this variable focuses on the Debt to Equity Ratio (DER) which compares total debt with company equity (Brigham & Houston, 2019). High utilization of debt will generate a fixed expense in the form of loan interest, which ultimately can be legally functioned as a taxable income deduction instrument (deductible expense).

Conceptual Framework

Based on the Agency Theory foundation, this conceptual framework outlines a conceptual model regarding the relationship between variables in a research phenomenon (Sugiyono, 2017). The difference in interests between the government pursuing cash receipts and management maintaining financial performance triggers legal expense efficiency efforts (Fadhila & Andayani, 2022). One of these efficiencies is carried out through tax avoidance strategies, which are highly influenced by the company's profitability and funding structure.

Specifically, a high level of profitability (ROA) will automatically boost an entity's tax burden obligation (Sinambela & Nur'aini, 2021). Responding to this, management is compelled to practice tax avoidance so that cash deposits to the state are minimized in order to maintain optimal net income. This logic is reinforced by previous empirical findings which prove a positive push from high profitability on tax avoidance practices (Arisandi & Kuntadi, 2024; Praystya & Anggrainie, 2024; Tefbana et al., 2025; Wahyuni & Wahyudi, 2021).

On the other hand, management's authority in determining the funding structure (leverage) also opens room for tax engineering. A high proportion of debt (DER) is often utilized by companies to generate fixed expenses in the form of loan interest which acts as a deductible expense or income reducer (Arisandi & Kuntadi, 2024). Various studies assert that this interest expense can effectively suppress taxable income, so leverage functions as a main instrument in tax avoidance practices (Khairunnisa et al., 2023; Mariana et al., 2021; Wahyuni & Wahyudi, 2021).

H₁: Profitability has an effect on tax avoidance

H₂: Leverage has an effect on tax avoidance

Based on the explanation above, the conceptual framework in this study maps the causality relationship between two independent variables and one dependent variable. Specifically, this model projects the direction of the influence of the Profitability (X1) and Leverage (X2) variables on Tax Avoidance practices (Y). The conceptual scheme of this relationship is visualized more clearly in Figure 1.

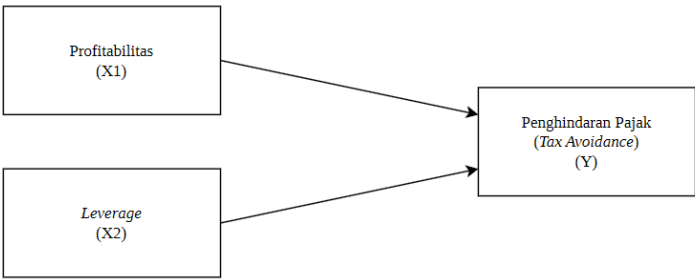


Figure 1. Conseptual Framework

Research Methods

This study uses a quantitative method with a causal associative approach utilizing secondary data in the form of annual reports from the official website of the Indonesia Stock Exchange. The research population was recorded as 130 consumer non-cyclicals manufacturing companies listed on the IDX during the 2021-2024 period. Sampling was conducted using a purposive sampling technique with eligibility criteria including: the availability of complete financial reports and the company not experiencing a loss during the observation period. Based on these criteria, 51 eligible companies were obtained with a total of 204 observation units.

Operasionalization of Variables

The independent variables in this study are profitability and leverage. Meanwhile, the dependent variable in this study is tax avoidance. The following is the variable operationalization table in this study:

Table 2. Operasionalization Variables

Research Variable	Definition	Variable Indicator	Scale
Profitability (X1)	Profitability is a measure used to assess a company's ability to generate profits and evaluate how efficiently management operates, which is reflected in the income obtained from sales and investments (Kasmir, 2021).	$Return\ On\ Assets = \frac{Profit\ After\ Tax}{Total\ Assets}$ (Siswanto, 2021)	Ratio
Leverage (X2)	Leverage is a measure used to assess the extent to which debt finances company assets, where broadly this ratio is used to measure the company's capacity	$Debt\ to\ Equity\ Ratio = \frac{Total\ Liability}{Total\ Equity}$ (Siswanto, 2021)	Ratio

Research Variable	Definition	Variable Indicator	Scale
	to fulfill all its obligations (Kasmir, 2021).		
Tax Avoidance (Y)	Tax avoidance is a series of tax planning activities aimed at suppressing or reducing the amount of explicit tax burden that must be paid by the taxpayer (Dyreng et al., 2010).	$CETR = \frac{Cash\ Tax\ Paid}{Profit\ Before\ tax}$ (Dyreng et al., 2010)	Ratio

Data Analysis Method

he data processing method begins with descriptive statistical analysis, followed by determining the best panel data regression model (Common, Fixed, or Random Effect Model) through the Chow Test, Hausman Test, and Lagrange Multiplier Test instruments. After the best model is selected, the estimation process continues with classic assumption testing which includes normality, multicollinearity, heteroscedasticity, and autocorrelation tests using Eviews statistical software.

The structure of the linear regression equation used in this modeling is formulated as follows:

$$Y_{it} = \alpha + \beta_1X_{it} + \beta_2X_{it} + \beta_nX_{it} + \varepsilon_{it}$$

Description:

- Y_{it} = Dependent Variable
- α = Constant value
- β = Regresion coefficient
- X = Independent Variable
- i = Cross section indicator
- t = Time series indicator
- ε = error term

Hypothesis Testing

Hypothesis testing is realized through a coefficient of determination test (Adjusted R-squared) to evaluate the explanatory ability of the independent variables, as well as a t-statistic test to test the significance of partial effects (Ghozali, 2011). The entire significance testing process is based on an error tolerance level (α) of 5% (0.05), where the alternative hypothesis is accepted if the significance value is below 0.05.

Results and Discussion

Descriptive Statistical Analysis and Model Feasibility Test

Based on observations of 204 panel data, the average tax avoidance rate (CETR) of the sample companies was 0.351 (35.1%), which is above the normative rate. Meanwhile, the average profitability rate (ROA) is at 0.097 (9.7%) and debt utilization (DER) reached 0.932 (93.2%). These descriptive results indicate that the majority of companies operate efficiently with a reasonably measured debt proportion below their equity value.

Table 3. Descriptive Statistical Analysis Results

Variabel	Nilai Minimum	Nilai Maksimum	Rata-rata	Standar Deviasi
CETR	0.000000	3.493101	0.351150	0.489417
ROA	0.001756	0.343097	0.097255	0.067261
DER	0.063869	6.465892	0.932430	0.989327

Source: Eviews 13 Output

The selection of the best regression model was conducted through the Chow Test, Hausman Test, and Lagrange Multiplier Test stages. Based on this evaluation, the Random Effect Model (REM) was consistently chosen as the most accurate analysis estimator. This model has also been confirmed to be feasible because it is free from multicollinearity and heteroscedasticity problems based on the classic assumption test of the Generalized Least Square (GLS) method. The results of the multiple linear regression modeling are presented in the table below:

Table 4. Random Effect Model (REM) Regression Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0.499330	0.095399	5.234105	0.0000
ROA	-1.730322	0.596629	-2.900163	0.0041
DER	0.021559	0.043878	0.491343	0.6237

Source: Eviews 13 Output

Based on a series of model determination testing methods, the Random Effect Model (REM) was selected as the most appropriate model in this study. The multiple linear regression equation formed from the data processing results is as follows:

$$CETR = 0,499330 - 1,730322X_1 + 0,021559X_2 + \varepsilon$$

A constant value of 0.499 indicates that if all independent variables are zero, the percentage of cash tax payments is at the level of 49.9%. This represents the basic provision limit of the sample companies' tax obligations on average.

The regression coefficient for the profitability variable (ROA) was recorded with a negative sign of -1.730. This mathematical fact predicts that for every one percent increase in the company's profit-generating ability, its tax payment ratio (CETR) will be significantly reduced. Considering that the

CETR value is inversely proportional to tax avoidance practices, this decrease in the CETR ratio represents an increase in tax avoidance intensity.

On the other hand, the regression coefficient for the leverage variable (DER) recorded a very small value with a positive sign of 0.021. This predicts that the dynamics of the company's debt structure movement barely provides any reduction impact on its tax burden. This condition indicates that debt is not exploited as a fiscal cash protection instrument.

Hypothesis Testing

The panel data regression test results recorded an Adjusted R-squared value of 0.0343 (3.43%). This empirical figure represents that variations in tax avoidance practices can be explained by profitability and leverage by 3.43%. This low value proves that tax efficiency strategies are highly complex and are more dominated by external factors outside the research model.

Partial t-statistic testing was then applied to evaluate the significance of the effect of each variable. The test results showed that the Profitability variable (ROA) obtained a probability value of 0.0041 (< 0.05). This means H1 is accepted, confirming that Profitability has a positive and significant effect on Tax Avoidance practices in consumer non-cyclicals manufacturing companies.

Conversely, testing on the Leverage variable (DER) obtained a probability value of 0.6237 (> 0.05). This indicates that H2 is rejected, which empirically proves the absence of a significant effect of debt structure on Tax Avoidance intensity.

Discussion

Statistical test results show that Profitability (ROA) has a significant positive effect on Tax Avoidance (CETR) in consumer non-cyclicals manufacturing companies on the IDX for the 2021-2024 period (Prob. $0.0041 < 0.05$; coefficient -1.730322). Referring to Hanlon & Heitzman (2010), a decrease in the CETR value below the Corporate Income Tax rate (22%) automatically represents an increase in tax avoidance practices.

Empirically, this phenomenon is seen in MYOR, which recorded an increase in ROA accompanied by a drastic decrease in CETR (2021-2022), as well as CPRO (2021) which posted a high ROA (34.3%) but paid a very low CETR (3.5%). This fact indicates that when profits are high, management tends to implement efficient tax planning strategies so that cash deposits to the state are minimized.

This condition is in line with the Agency Theory (Jensen & Meckling, 1976) regarding the conflict of interest between the government as the principal and the business entity as the agent. As agents of the shareholders, management has a strong incentive to legally utilize regulatory loopholes (grey areas) to protect these high profits.

Meanwhile, testing on the Leverage variable (DER) proved the absence of a significant effect on Tax Avoidance (CETR) with a Prob. value of 0.6237 (> 0.05) and a coefficient of 0.021559. This is directly proven by UNVR's data, which recorded an extreme DER spike in 2024 (6.466) but its cash tax payment value remained stable (0.160).

The opposite example is seen in MIDI, which consistently reduced its debt ratio over the 2021-2024 period, yet its CETR percentage tended to be constant in the range of 21% to 25%. Judging from the essence of its business, debt in the consumer non-cyclicals sector is purely focused on maintaining operational liquidity such as purchasing raw materials and distribution stability, not as a tax engineering instrument.

Overall, the findings of this study are consistent with previous studies by Tanjaya & Nazir (2021), Niandari & Novelia (2022), and Praystya & Anggrainie (2024). These studies confirm that high profitability drives management to engineer taxes to protect profits, while the level of debt is purely used for the entity's operational funding.

References

- Adi, S. E. P., & Frana. (2024). Pengaruh Profitabilitas dan Risiko Perusahaan Terhadap Penghindaran Pajak. *Jurnal Ilmiah Cendekia Akuntansi*, 9.
<https://doi.org/https://doi.org/10.32503/cendekiaakuntansi.v9i1.4874>
- Arisandi, B., & Kuntadi, C. (2024). Pengaruh Return On Asset, Debt To Equity Ratio Dan Ukuran Perusahaan Terhadap Tax Avoidance. *Neraca*.
- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management* (15th ed.). Cengage Learning.
- Direktorat Jenderal Pajak. (2025). Pajak Bergerak di Tengah Gejolak. *Pajak.Go.Id*.
<https://www.pajak.go.id/id/artikel/pajak-bergerak-di-tengah-gejolak>
- Dyrengr, S. D., Hanlon, M., & Maydew, E. L. (2010). Long-Run Corporate Tax Avoidance. *The Accounting Review*.
- Fadhila, N., & Andayani, S. (2022). Pengaruh Financial Distress, Profitabilitas, dan Leverage terhadap Tax Avoidance. *Owner: Riset & Jurnal Akuntansi*, 6(4), 3489–3500.
<https://doi.org/10.33395/owner.v6i4.1211>
- Ghozali, I. (2011). *Aplikasi Analisis Multivariate Dengan Program SPSS*. Badan Penerbit Universitas Diponegoro.
- Hanlon, M., & Heitzman, S. (2010). A Review of Tax Research. *Journal of Accounting and Economics Conference*.
- Jensen, M. C. (1976). Theory of The Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Meckling, William H*.
- Kasmir. (2021). *Analisis Laporan Keuangan (Revisi)*. PT Rajagrafindo Persada.
- Kemenkeu. (2024, March 25). Menkeu: Penerimaan Pajak Hingga Pertengahan Maret 2024 Sebesar Rp 342,88 triliun. *Kemenkeu.Go.Id*. <https://www.kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Penerimaan-Pajak-Maret-2024>
- Khairunnisa, N. A., Simbolon, A. Y., & Eprianto, I. (2023). Pengaruh Leverage, Profitabilitas, Good Governance Terhadap Penghindaran Pajak (Tax Avoidance). *Economina*, 2.
- Mariana, C., Riyadi, S. A., Fauzi, L. S. L., Khairunnisa, S. A., Yudhistira, R., & Mutisanian, K. (2021). Leverage And Profitability on Tax Avoidance: Evidence on Mining Sector Companies Listed on

- The Indonesia Stock Exchange (Idx). *Review Of Internasional Geographical Education (RIGEO)*, 11(3), 1542–1358. <https://doi.org/10.33403/rigeo.800599>
- Niandari, N., & Novelia, F. (2022). Profitabilitas, leverage, inventory, intensity ratio, dan praktek penghindaran pajak. *Owner: Riset & Jurnal Akuntansi*, 6(3).
<https://doi.org/https://doi.org/10.33395/owner.v6i3.911>
- Nursari, D. M., & Nazir, N. (2023). Pengaruh Profitabilitas, Leverage, Capital Intensity, dan Inventory Intensity Terhadap Tax Avoidance Pada Perusahaan Manufaktur Sektor Industri Barang Konsumsi Yang Terdaftar Di BEI Tahun 2018-2020. *Ekonomi Trisakti*.
<https://doi.org/http://dx.doi.org/10.25105/jet.v3i1.16462>
- Nursophia, A., Eprianto, I., & Marundha, A. (2023). Pengaruh Profitabilitas dan Leverage Terhadap Tax Avoidance Pada Perusahaan Pertambangan Sub Sektor Batu Bara Yang Terdaftar Di Bursa Efek Indonesia (BEI) Periode Tahun 2017-2021. *SENTRI: Jurnal Riset Ilmiah*, 2.
- Praystya, R. D. C., & Anggrainie, N. (2024). Pengaruh Ukuran Perusahaan, Leverage, Profitabilitas, dan Sales Growth Terhadap Tax Avoidance Pada Perusahaan Sektor Pertambangan Yang Terdaftar di Bursa Efek Indonesia Periode 2016-2020. *INNOVATIVE: Journal Of Social Science Research*, 4.
- Sari, D. (2016). *Perpajakan: Konsep, Teori dan Aplikasi Pajak Penghasilan*. Mitra Wacana Media.
- Shaqira, A. F., Sidharta, I., & Sholihah, S. (2025). Tax Avoidance: The Role of Size and Intensity of Indonesian Manufacturing Sector (2021-2024). *Journal of Economics, Management, and Entrepreneurship*, 3(2).
- Sinambela, T., & Nur'aini, L. (2021). Pengaruh Umur Perusahaan, Profitabilitas dan Pertumbuhan Penjualan Terhadap Tax Avoidance. *Jurnal Inovasi Bisnis Dan Manajemen Indonesia*, 5(1).
- Siswanto, E. (2021). *Manajemen Keuangan Dasar: Buku Ajar*. Universitas Negeri Malang.
- Sugiyono. (2017). *Metode Penelitian Bisnis: Pendekatan Kuantitatif, Kualitatif, Kombinasi, dan R&D*. Alfabeta.
- Tanjaya, C., & Nazir, N. (2021). Pengaruh Profitabilitas, Leverage, Pertumbuhan Penjualan, dan Ukuran Perusahaan Terhadap Penghindaran Pajak. *Jurnal Akuntansi Trisakti*, 8(2).
<https://doi.org/http://dx.doi.org/10.25105/jat.v8i2.9260>
- Tefbana, A. M., Dekrita, Y. A., & Yuneti, K. (2025). Pengaruh Ukuran Perusahaan dan Profitabilitas Terhadap Tax Avoidance Pada Perusahaan Manufaktur Di Bursa Efek Indonesia Tahun 2020-2024. *PROJEMEN UNIPA*, 12.
- Undang-Undang Nomor 7 Tahun 2021 Tentang Harmonisasi Peraturan Perpajakan, Pub. L. 21, peraturan.bpk.go.id (2021).
- Undang-Undang (UU) Nomor 28 Tahun 2007 , Pub. L. Berlaku, Database Peraturan BPK (2007).
- Wahyuni, T., & Wahyudi, D. (2021). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan, Sales Growth, dan Kualitas Audit Terhadap Tax Avoidance. *Jurnal Ilmiah Komputerisasi Akuntansi*, 14(2).