

Corporate Tax Avoidance Under Financial Distress: The Role of Profitability and Altman–Springate Models

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ABSTRACT.

This study aims to examine the effect of financial distress on tax avoidance with profitability as a moderation variable in industrial sector companies in Indonesia for the period 2015–2021. Financial distress is measured using two bankruptcy prediction models, namely the Altman Z-Score Model and the Springate S-Score Model, while profitability is proxied by Return on Assets (ROA). The research population is industrial sector companies listed on the Indonesia Stock Exchange (IDX), with samples selected using the purposive sampling method so that 53 companies were obtained with 371 observations of unbalanced panel data during seven years of observation. The data was analyzed using panel data regression and Moderated Regression Analysis (MRA) with the help of the Eviews program. The results of the model selection test show that the Common Effect Model (CEM) is the most appropriate estimation model based on the Chow test, the Hausman test, and the Lagrange Multiplier test. The results of the hypothesis test show that neither the financial distress of the Altman Model nor the Springate Model have a significant effect on tax avoidance. Profitability also did not have a significant effect on tax avoidance and was not proven to moderate the relationship between financial distress and tax avoidance in both models. These findings indicate that the financial pressures experienced by companies do not necessarily encourage companies to adopt more aggressive tax avoidance practices. This study suggests that the next study consider other variables, such as leverage, company size, corporate governance, and capital intensity, to obtain a more comprehensive picture of the determinants of tax avoidance.

Keywords: *Altman Model; Financial Distress; Profitability; Springate Model; Tax Avoidance*

INTRODUCTION

Taxes are the main source of state revenue which has a strategic role in financing national development, providing public services, and maintaining fiscal stability. In Indonesia, tax revenue makes the largest contribution to the State Revenue and Expenditure Budget (APBN), so increasing taxpayer compliance is one of the government's priorities. On the other hand, for companies, taxes are seen as a cost that will reduce after-tax profits, thus encouraging management to carry out various tax planning strategies. Tax avoidance is a spectrum of tax planning activities that aim to reduce explicit corporate taxes through the use of tax provisions that are still within the legal limit (Hanlon et al., 2010). In other words, tax avoidance differs from tax evasion because it does not directly violate tax regulations, although it is often seen as contrary to the spirit of tax regulations.

The phenomenon of corporate tax avoidance is a concern for various countries because it can reduce tax revenues and reduce the government's capacity to finance development. Aggressive tax avoidance practices can even affect market

perception of companies because investors consider these strategies to contain legal risks as well as reputational risks (Hanlon et al., 2009). One of the factors that is suspected to affect tax avoidance behavior is financial distress. Financial distress as a condition when a company experiences a decline in its ability to meet its financial obligations due to weakening cash flows, increasing debt burdens, or declining profitability (Wang et al., 2019). In these conditions, companies face high liquidity pressures so they strive to make various efficiencies, including tax payment efficiency. The relationship between financial distress and tax avoidance can be explained using Agency Theory. The existence of a conflict of interest between shareholders and managers causes management to try to maximize its utility through various economic decisions, including tax policies (Jensen & Meckling, 1976). When a company faces financial difficulties, managers have a greater incentive to maintain cash flow and business continuity through a tax burden reduction strategy.

However, the results of research on the effect of financial distress on tax avoidance still show inconsistencies. Some studies have found that companies that are under financial stress tend to increase their tax avoidance practices to maintain corporate liquidity. In contrast, another study found that companies experiencing financial distress actually reduced tax avoidance practices due to increased regulatory oversight and litigation risk. The difference in results shows that the relationship between the two variables is still inconclusive, requiring further research. One of the causes of the inconsistency is suspected to come from differences in financial distress measurements. The Altman Z-Score is a bankruptcy prediction model that combines five financial ratios to measure the probability of a company's failure (Altman, 1968). Furthermore, Springate (1978) developed the Springate S-Score which uses four financial ratios from discriminatory analysis and produces a high level of prediction accuracy. The two models have different characteristics that make it possible to produce different empirical conclusions in explaining tax behavior (Springate, 1978). In addition to financial conditions, profitability is also expected to affect the relationship. Profitability reflects a company's ability to generate profits through the utilization of its assets (Brigham & Houston, 2021). Companies with a high level of profitability have a greater taxable profit so they have a higher incentive to do tax planning. In contrast, more profitable companies also receive stricter supervision from tax authorities so as to limit aggressive tax avoidance practices. Therefore, profitability is estimated to be able to moderate the relationship between financial distress and tax avoidance.

This research has several novelties. First, the study compared two financial distress prediction models, namely the Altman Z-Score and the Springate S-Score, in explaining corporate tax avoidance behavior. Second, the study tested profitability as a moderation variable, not just a control variable as many previous studies have done. Third, the study uses industrial sector companies listed on the Indonesia Stock Exchange during the period 2015–2021, which is a period that includes conditions before and during the COVID-19 pandemic so as to provide a relevant context to examine the influence of financial pressure on corporate tax behavior. Based on this

description, this study aims to analyze the effect of financial distress measured using Altman Z-Score and Springate S-Score on corporate tax avoidance, as well as test whether profitability is able to moderate the relationship in industrial sector companies listed on the Indonesia Stock Exchange for the 2015–2021 period.

LITERATURE REVIEW

Agency Theory

Agency theory describes the contractual relationship between the principal (shareholders) and the agent (management) that has the potential to cause a conflict of interest due to information asymmetry (Jensen & Meckling, 1976). In the context of taxation, management as an agent can take advantage of information gaps to make tax planning decisions, including tax avoidance, which are not necessarily in line with the interests of shareholders or tax authorities. When a company experiences financial distress, management's encouragement to reduce tax burdens to maintain cash flow can be even greater, so agency conflicts have the potential to increase.

Signaling Theory

Signal theory describes how the party with more information (the company) signals to the external parties with less information, including investors and creditors, in order to reduce the information asymmetry between them (Spence et al., 1973). In the context of this study, a high level of profitability can be a positive signal regarding the company's performance, but it can also be a signal to the tax authorities regarding the company's capacity to pay taxes, thus influencing the company's decision in formulating its tax strategy.

Tax Avoidance

Tax avoidance is a tax avoidance action that is carried out legally and safely for taxpayers because it does not conflict with applicable tax provisions, by taking advantage of weaknesses (grey areas) contained in tax laws and regulations (Hanlon et al., 2010). Tax avoidance is generally measured using the Effective Tax Rate (ETR) proxy, which compares the income tax burden with pre-tax profit. The lower the ETR value of a company, the higher the indication of tax avoidance practices carried out (Richardson & Lanis, 2007).

Financial Distress

Financial distress is a condition when a company experiences financial difficulties that can lead to business failure or bankruptcy if not addressed immediately (Platt et al., 2002). This study uses two bankruptcy prediction models that have been widely used and recognized in the financial accounting literature.

Altman Z-Score Model

The Altman Z-Score model was developed using multiple discriminant analysis of several financial ratios, including working capital to total assets, retained

earnings to total assets, earnings before interest and taxes to total assets, market value of equity to total liabilities, and sales to total assets. The lower the Z-Score of a company, the higher the indication of the risk of financial difficulties faced (Altman, 1968).

Springate S-Score Model

The Springate S-Score model was developed as an improvement of the Altman model, using four financial ratios, namely working capital to total assets, earnings before interest and taxes to total assets, earnings before tax to current liabilities, and sales to total assets. The model also produces a score that indicates the company's level of financial health, with a lower value indicating higher financial distress (Miller & Springate, 1978).

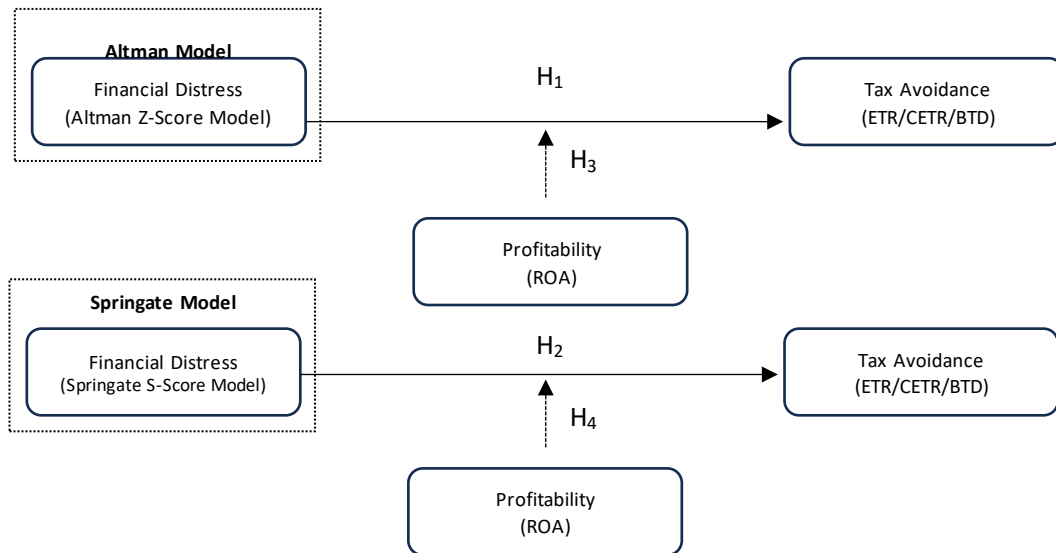
Profitabilitas

Profitability describes a company's ability to generate profits from its assets and capital. In this study, profitability is proxied by Return on Assets (ROA), which is a comparison between net profit and total company assets. ROA reflects management's efficiency in managing assets to generate profits, and is often associated with the company's capacity and motivation in conducting tax planning (Kurniasih et al., 2013).

Relevant Research

Various previous studies have tested the relationship between financial distress, profitability, and tax avoidance with mixed results. Financial distress, profitability, and leverage affect tax avoidance in multinational manufacturing companies (Fadhila et al., 2022). The effect of financial distress on tax avoidance varies depending on its interaction with thin capitalization and capital intensity (Ravanelly & Soetardjo, 2023). Companies facing increased financial constraints show an improvement in cash tax planning (Edwards, 2016). About a quarter of companies pay taxes exceeding 35 percent of their pre-tax income over a ten-year period (Dyrenge, 2010). A mixed relationship was found between corporate tax avoidance and corporate performance in Vietnam (Khuong, 2020). Corporate social responsibility is positively and significantly related to tax avoidance in the case of Nigeria (Khan, 2022). On the other hand, a number of other studies have found that companies that experience distress are actually more cautious due to stricter supervision from creditors and tax authorities, so that the effect of financial distress on tax avoidance is insignificant. Similarly, the results of research on the role of profitability as a variable that influences and moderates the relationship still show inconsistencies (Suyanto et al., 2012), thus opening up space for further research as was done in this study.

Conceptual Framework



Picture 1. Conceptual Framework

Research Hypothesis

H₁: Financial distress Altman's model affects tax avoidance.

H₂: Financial distress Springate Model affects tax avoidance.

H₃: Profitability moderates the influence of the Altman Model's financial distress on tax avoidance.

H₄: Profitability moderates the influence of financial distress of the Springate Model on tax avoidance.

RESEARCH METHODS

Type, Population and Research Sample

This study uses a quantitative approach with a causal associative research design, which aims to examine the influence between variables and the role of moderation variables based on secondary data sourced from the Company's financial statements. The population of this study is all industrial sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2015–2021. The sample was selected using the purposive sampling method with criteria including: (1) industrial sector companies that are consistently listed on the IDX during the observation period; (2) publish complete and audited annual financial statements; (3) not suffer losses that cause the ETR value to be uninterpretable; and (4) have complete data for all research variables. Based on these criteria, 53 companies were obtained with a total of 371 observations of unbalanced panel data during seven years of observation (2015–2021); The number of observations in models with ROA moderation variables decreased to 278 observations due to limited ROA data in some companies-based.

Table 1. Variable Operational Definition

Variable	Simbol	Measurement
Tax Avoidance	Y	Effective Tax Rate (ETR) = Income Tax Expense / Profit Before Tax
Financial Distress (Altman)	X ₁	Z-Score = 1,2(WC/TA) + 1,4(RE/TA) + 3,3(EBIT/TA) + 0,6(MVE/TL) + 1,0(Sales/TA)
Financial Distress (Springate)	X ₂	S-Score = 1,03(WC/TA) + 3,07(EBIT/TA) + 0,66(EBT/CL) + 0,4(Sales/TA)
Profitabilitas (moderation)	Z	Return on Assets (ROA) = Net Profit / Total Assets

Data Analysis Techniques

Data analysis was carried out by regression of panel data using the Eviews program. The stages of analysis include: (1) descriptive statistical analysis to describe the characteristics of the research data; (2) selection of the best estimation model between Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) through Chow test, Hausman test, and Lagrange Multiplier test; (3) classical assumption test to ensure the regression model meets the Best Linear Unbiased Estimator (BLUE) qualifications; and (4) hypothesis testing using multiple linear regression and Moderated Regression Analysis (MRA) to test the role of profitability moderation, by looking at the significance of the interaction variable coefficient ($X*Z$).

Model Selection Test and Hypothesis Test

Chow test: comparing the Common Effect Model with the Fixed Effect Model. Hausman test: compares the Fixed Effect Model with the Random Effect Model. Lagrange Multiplier test: compares the Common Effect Model with the Random Effect Model. Hypothesis testing was carried out through a determination coefficient test (R^2), a simultaneous test (F test), and a partial test (t test) at a significance level of 5% ($\alpha = 0.05$). The variable is declared to have a significant effect if the probability value is less than 0.05

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Estimation Model Selection Analysis

Chow Test

The Chow test was conducted to compare or select the best model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). Decision making is carried out by looking at the probability value (p) for the cross-section F. If the value of $p > 0.05$, then the model chosen is the Common Effect Model, while if $p < 0.05$, then the model chosen is the Fixed Effect Model.

H₀: Common Effect Model (CEM) is better

H₁: Fixed Effect Model (FEM) is better

Table 2. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0,802328	(52,222)	0,8265
Cross-section Chi-square	47,875621	52	0,6367

Source: Output Eviews, data processed (2026).

Based on the results of the Chow test in Table 2, the probability value of the cross-section F is 0.8265 and the cross-section of Chi-square is 0.6367, both of which are greater than the significance level of 0.05, so H₀ is accepted. Thus, the more appropriate estimation model used at this stage is the Common Effect Model.

Hausman Test

The Hausman test is carried out to compare or choose the best model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). Decision making is done by looking at random cross-section probability values. If the value of $p > 0.05$, then the chosen model is the Random Effect Model, while if $p < 0.05$, then the model chosen is the Fixed Effect Model.

Table 3. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0,528383	3	0,9126

Source: Output Eviews, data processed (2026).

The probability value of 0.9126 is greater than 0.05, so H₁ is accepted. Based on Hausman's test, the more appropriate model used is the Random Effect Model.

Lagrange Multiplier Test

The Lagrange Multiplier test is carried out to compare or choose the best model between the Common Effect Model (CEM) and the Random Effect Model (REM). If the value of $p > 0.05$, then the chosen model is the Common Effect Model, while if $p < 0.05$, then the chosen model is the Random Effect Model.

Table 4. Lagrange Multiplier Result

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.182796 (0.6690)	0.261073 (0.6094)	0.443869 (0.5053)
Honda	0.427547 (0.3345)	-0.510953 (0.6953)	-0.058977 (0.5235)
King-Wu	0.427547 (0.3345)	-0.510953 (0.6953)	-0.338415 (0.6325)
Standardized Honda	0.698274 (0.2425)	-0.254131 (0.6003)	-5.160283 (1.0000)

Standardized King-Wu	0.698274 (0.2425)	-0.254131 (0.6003)	-3.894223 (1.0000)
Gourieroux, et al.	--	--	0.182796 (0.5627)

Source: Output Eviews, data processed (2026).

Based on the results of the Lagrange Multiplier test in Table 4, the Breusch-Pagan probability value for both tests is 0.5053, greater than 0.05. Thus, the more appropriate model to use is the Common Effect Model rather than the Random Effect Model. Based on the series of three model selection tests (Chow test, Hausman test, and Lagrange Multiplier test), it is concluded that the Common Effect Model (CEM) is the most appropriate estimation model used in this study.

CLASSIC ASSUMPTION TEST

Hypothesis Testing: Altman's Financial Distress Model (X_1) on Tax Avoidance (Y)

Direct Influence of X_1 on Y

The moderation of the variable Z on the influence of X_1 on Y to test the existence of Z as a pure moderator or not a moderating variable at all can be observed with the following criteria

Table 5. Regression of X_1 against Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.372186	0.128345	-2.899882	0.0040
X_1	0.000354	0.005557	0.063752	0.9492
R-squared	0.000011	Mean dependent var		-0.371326
Adjusted R-squared	-0.002699	S.D. dependent var		2.455118
S.E. of regression	2.458429	Akaike info criterion		4.642298
Sum squared resid	2230.189	Schwarz criterion		4.663410
Log likelihood	-859.1463	Hannan-Quinn criter.		4.650683
F-statistic	0.004064	Durbin-Watson stat		1.209409
Prob(F-statistic)	0.949202			

Source: Output Eviews, data processed (2026).

Based on the results of the regression analysis, the equation $Y = -0.372186 + 0.000354X_1 + e$, with Y being tax avoidance and X_1 being the financial distress of the Altman Model. The constant value of -0.372186 indicates that if financial distress is considered constant, then the tax avoidance value is -0.372186. The financial distress variable of the Altman Model has a regression coefficient of 0.000354 with a probability of 0.9492, which indicates a positive but not statistically significant relationship to tax avoidance.

Based on the partial test (t-test), the probability value of 0.9492 is greater than 0.05 so that H_0 is accepted and H_1 is rejected. The results of the simultaneous test (F test) also showed a probability value of 0.949202 (> 0.05), which means that the regression model was not significant simultaneously. The R^2 value of 0.000011

indicates that the financial distress of the Altman Model is only able to explain about 0.0011% of tax avoidance variations, so the relationship between the two variables is very weak. Thus, the financial distress of the Altman Model did not have a significant effect on tax avoidance in Indonesian industrial companies for the period 2015–2021, so H_1 in this study was rejected.

The Effect of Profitability (Z) on Y and the Moderation Test on the X_1 -Y Relationship

Table 6. Regression Result X_1 with Profitability (Z) to Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.504217	0.174035	-2.897217	0.0041
X_1	0.000714	0.006491	0.109949	0.9125
Z	0.475426	2.109811	0.225341	0.8219
R-squared	0.000260	Mean dependent var		-0.494422
Adjusted R-squared	-0.007011	S.D. dependent var		2.826729
S.E. of regression	2.836620	Akaike info criterion		4.933836
Sum squared resid	2212.764	Schwarz criterion		4.972983
Log likelihood	-682.8033	Hannan-Quinn criter.		4.949542
F-statistic	0.035729	Durbin-Watson stat		1.299655
Prob(F-statistic)	0.964906			

Source: Output EvIEWS, data processed (2026).

Table 7. Regression Results of X_1*Z to Y Moderation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.574354	0.189880	-3.024831	0.0027
X_1	-0.000850	0.006709	-0.126712	0.8993
Z	1.008343	2.187606	0.460935	0.6452
X_1Z	0.185118	0.200145	0.924922	0.3558
R-squared	0.003371	Mean dependent var		-0.494422
Adjusted R-squared	-0.007541	S.D. dependent var		2.826729
S.E. of regression	2.837366	Akaike info criterion		4.937913
Sum squared resid	2205.877	Schwarz criterion		4.990109
Log likelihood	-682.3700	Hannan-Quinn criter.		4.958854
F-statistic	0.308967	Durbin-Watson stat		1.306429
Prob(F-statistic)	0.818902			

Source: Output EvIEWS, data processed (2026).

The regression results in Table 6 show that the profitability variable (ROA) has a regression coefficient of 0.475426 with a probability of 0.8219, which means that profitability has a positive but insignificant effect on tax avoidance. After entering the interaction variable X_1*Z in Table 7, a coefficient of 0.185118 with a probability of 0.3558 (> 0.05) was obtained, which means that the interaction between the Altman Model's financial distress and profitability had no significant effect on tax avoidance. Thus, profitability does not meet the criteria as a moderation variable, both its direct

influence on tax avoidance and the effect of its interaction with financial distress, the Altman Model is not statistically significant, so H_3 in this study is rejected.

Hypothesis Testing: Financial Distress Model Springate (X_2) against Tax Avoidance (Y)

Direct Influence of X_2 on Y

Table 8. Regression Results X_2 to Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.371253	0.127766	-2.905723	0.0039
X_2	-0.000170	0.013399	-0.012724	0.9899
R-squared	0.000000	Mean dependent var		-0.371326
Adjusted R-squared	-0.002710	S.D. dependent var		2.455118
S.E. of regression	2.458442	Akaike info criterion		4.642309
Sum squared resid	2230.213	Schwarz criterion		4.663421
Log likelihood	-859.1483	Hannan-Quinn criter.		4.650694
F-statistic	0.000162	Durbin-Watson stat		1.209463
Prob(F-statistic)	0.989855			

Source: Output Eviews, data processed (2026).

The regression equation obtained is $Y = -0.371253 - 0.000170X_2 + e$. The financial distress variable of the Springate Model has a regression coefficient of -0.000170 with a probability of 0.9899, indicating a negative relationship direction but very insignificant statistically significant. The probability values of the t-test (0.9899) and the F-test (0.989855) which are much greater than 0.05 confirm that the financial distress of the Springate Model has no significant effect on tax avoidance, with an R^2 value of 0.000000 indicating that the model has almost no clear power at all on tax avoidance variations. Thus, H_2 in this study was rejected.

Comparison of the Altman Model and the Springate Model

Table 9. Comparison of the Influence of the Altman Model and the Springate Model on Tax Avoidance

Financial Distress Model	Koefisien	Prob.	Conclusion
Altman (X_1)	0,000354	0,9492	Insignificant
Springate (X_2)	-0,000170	0,9899	Insignificant

Source: Processed from Table 5 and Table 8

When compared, the two financial distress models show relatively similar results, namely they both have no significant effect on tax avoidance. The Altman model shows the direction of a positive relationship, while the Springate model shows the direction of a negative relationship, but both have a probability value that is well above 0.05. This indicates that the selection of the financial distress prediction model does not change the main conclusion of the study, namely that the condition of

financial difficulties has not been able to explain the tax avoidance behavior of industrial companies in Indonesia.

Effect of Profitability (Z) on Y and Moderation Test on X₂-Y Relationships

Table 10. Regression Result X₂ with Profitability (Z) to Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.502380	0.173309	-2.898752	0.0040
X ₂	-0.000247	0.015703	-0.015731	0.9875
Z	0.514524	2.120090	0.242689	0.8084
R-squared	0.000217	Mean dependent var		-0.494422
Adjusted R-squared	-0.007054	S.D. dependent var		2.826729
S.E. of regression	2.836681	Akaike info criterion		4.933880
Sum squared resid	2212.859	Schwarz criterion		4.973027
Log likelihood	-682.8093	Hannan-Quinn criter.		4.949585
F-statistic	0.029807	Durbin-Watson stat		1.299761
Prob(F-statistic)	0.970636			

Source: Output Eviews, data processed (2026)

Table 11. Results of Moderation Regression X₂*Z to Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.564774	0.187917	-3.005454	0.0029
X ₂	-0.000908	0.015730	-0.057706	0.9540
Z	1.258455	2.290220	0.549491	0.5831
X ₂ Z	0.310510	0.360531	0.861259	0.3898
R-squared	0.002916	Mean dependent var		-0.494422
Adjusted R-squared	-0.008001	S.D. dependent var		2.826729
S.E. of regression	2.838014	Akaike info criterion		4.938370
Sum squared resid	2206.885	Schwarz criterion		4.990566
Log likelihood	-682.4335	Hannan-Quinn criter.		4.959311
F-statistic	0.267108	Durbin-Watson stat		1.306575
Prob(F-statistic)	0.849081			

Source: Output Eviews, data processed (2026)

The results in Table 10 show that profitability has a coefficient of 0.514524 with a probability of 0.8084, which means that it has a positive but not significant effect on tax avoidance. In Table 11, the interaction variable X₂*Z has a coefficient of 0.310510 with a probability of 0.3898 (> 0.05), which shows that the interaction between the financial distress of the Springate Model and profitability does not have a significant effect on tax avoidance. Thus, profitability was also unable to moderate the relationship between the financial distress Springate Model and tax avoidance, so H₄ in this study was rejected.

Table 12. Summary of Hypothesis Testing Results

Model	FD → Tax Avoidance	ROA → Tax Avoidance	ROA Moderation
Altman (X1)	Insignificant	Insignificant	Insignificant
Springate (X2)	Insignificant	Insignificant	Insignificant

Source: Processed from Tables 5–11

Discussion

The results of the study consistently show that financial distress, both measured using the Altman Model and the Springate Model, did not have a significant effect on tax avoidance in industrial sector companies in Indonesia during the 2015–2021 period. These findings indicate that companies that are experiencing financial stress do not necessarily engage in more aggressive tax avoidance practices. These findings are in line with the view that companies experiencing financial distress tend to be under stricter supervision from creditors, tax authorities, and capital market regulators, so that the room for aggressive tax planning is limited. Second, tax avoidance decisions are likely to be more influenced by other structural factors, such as leverage, company size, ownership structure, and corporate governance (Kurniasih & Sari, 2013), compared to the short-term financial stress conditions reflected in both Altman and Springate scores.

Similarly, profitability proxied by ROA was not shown to have a significant effect on tax avoidance or act as a moderation variable in the relationship between financial distress and tax avoidance, both in the Altman Model and the Springate Model. This finding is in contrast to a number of previous studies that have found that companies with high profitability have greater incentives and resources to do aggressive tax planning (Fadhila & Andayani, 2022). This difference in results can be caused by the characteristics of the industrial sector studied, the observation period that includes the COVID-19 pandemic with high profit volatility, and the difference in the proxy of tax avoidance measurement used.

Overall, the results of this study indicate that financial distress and profitability are not the main determinants in explaining tax avoidance practices in industrial companies in Indonesia. The very low value of the determination coefficient (R^2) in all regression models (ranging from 0.00001–0.0034) also strengthens the conclusion that tax avoidance variations are more explained by other variables outside the study model, as indicated by the findings regarding the ETR trend of companies in Indonesia which is influenced by various structural and operational factors (Awaliah et al., 2022).

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the results of the analysis and discussion, this study concluded that financial distress measured using the Altman Z-Score Model and the Springate S-

Score Model did not have a significant influence on corporate tax avoidance in industrial sector companies listed on the Indonesia Stock Exchange during the period 2015–2021. Thus, the first hypothesis (H_1) and the second hypothesis (H_2) are not supported. The results of this study indicate that the financial difficulties experienced by companies do not directly encourage management to carry out tax avoidance practices. In addition, profitability proxied by Return on Assets (ROA) has also not been shown to be able to moderate the relationship between financial distress and tax avoidance, both when financial distress is measured using the Altman Model or the Springate Model. Oleh karena itu, hipotesis ketiga (H_3) dan hipotesis keempat (H_4) juga tidak didukung. These findings show that the level of company profitability does not strengthen or weaken the influence of financial hardship conditions on the company's decision to carry out tax avoidance. Furthermore, the results of the comparison between the two financial distress prediction models show consistent findings, namely that both the Altman Z-Score and the Springate S-Score are unable to explain the significant variation in tax avoidance. Thus, the difference in the financial distress measurement model did not affect the main conclusions of the study, indicating that tax avoidance behavior in industrial sector companies in Indonesia during the study period may be more influenced by other factors outside of financial hardship and profitability, such as corporate governance, ownership characteristics, fixed asset intensity, tax policies, and supervisory mechanisms from tax authorities.

Suggestions

Based on the results of the research, there are several suggestions that can be given. Theoretically, further research is suggested to add other variables that have the potential to affect tax avoidance, such as leverage, company size, capital intensity, institutional ownership, and corporate governance, so as to improve the model's ability to explain tax avoidance variations. Methodologically, subsequent research can expand the research object to other sectors, extend the observation period, and use different tax avoidance proxies, such as Cash Effective Tax Rate (Cash ETR) or Book-Tax Differences (BTD), to test the consistency of research results. Practically, tax authorities are expected to consider other factors beyond financial distress and profitability in developing tax avoidance supervision strategies, while companies need to continue to implement good tax compliance as part of corporate governance and business sustainability.

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