The Role of Real Earnings Management (REM) in The Relationship between Financial Distress and Tax Planning

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Abstract

The aim of this study is to test the impact of real earnings management (REM) on the relationship between financial distress and tax planning. To survive and maximise financial potential in the face of financial distress, management tends to use accounting tactics to increase revenue in order to reach the company's target. The study sample comprises manufacturing sector firms listed in the IDX between 2018 and 2022. The total company sample consisted of 124 companies with 542 observations. The study employed robust random effect panel regression techniques. This research reveals that there is a negative link between financial distress and tax planning. This study fails to prove that REM strengthens the relationship between financial distress and tax planning. Furthermore, the study discovered that two groups of firms with high and low REM abnormal cash flows exhibited distinct financial distress behaviours towards tax planning. The practical implications are that increased regulatory attention and decreased financial resources create a lower motivation to evade taxes, as exhibited by the negative correlation between financial distress and tax planning.

Introduction

Financial distress (FD) is a popular topic among academics and practitioners, and several researchers have developed different models to predict financial difficulties in firms over the past few decades (Mehmood & De Luca, 2023). Previous studies, Dhamara & Violita (2018) and Nugroho & Firmansyah (2017), which discussed the relationship between FD and tax planning (TP), stated that FD has no significant influence on TP because the study does not cover periods of financial crises that can increase the chances of FD. Several investigations in Indonesia have tested TP using measurements based on the Cash Effective Tax Rate (CETR) (Sadjiarto et al., 2020; Monika & Noviari, 2021). However, unlike this study, the TP uses the equation based on the residual book tax difference (BTD). Previous research suggests that selecting the residual BTD as a measurement of TP can impact earnings management (EM) (Samailaa & Siyanbolab, 2021; Tanko, 2023; Ariff et al., 2023).

Identify a firm in FD when it has a negative net income and is unable to meet its short- and long-term obligations (Sudaryo et al., 2021). If a firm does not deal with these difficulties, many firms will face FD and even bankruptcy due to operational disruption (Lassoued & Khanchel, 2021). External and internal parties can observe such analyses (Robiansyah et al., 2022). From there, the company must be able to survive and prioritise the efficiency of its operational performance.

One strategy to survive and maximise the financial potential in the face of FDs is that management entities tend to use accounting tactics to increase revenue in order to reach the company's target (Ali et al., 2022; Dang & Tran, 2021; & Sun, 2022). In this study, the choice of methods of measuring FD would be using the Altman Z-score model (1968). Robiansyah et al. (2022) contend that the Altman model (1968) outperforms the Springate

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model (1978), Zmijewski models (1983), and Grover models (2001) in predicting the bankruptcy of manufacturing sector companies.

According to data from the Central Statistical Authority, manufacturing firms' gross domestic product (GDP) is consistently the dominant business area in the economy and contributes to Indonesia's largest tax receipt. Conversion from manufacturing sector firms to GDP in 2022 has declined, with a 2022 contribution of 18.34% and manufacturing company GDP for 2018 of 19.86% (Central Bureau of Statistics, 2023). Based on previous explanations, this study will explore the impact of manufacturing companies during FD, as they engage in TP strategies to maintain their contribution to the GDP and tax revenues for the state. Jasmine, L. (2022) considered TP and tax aggressiveness equivalent, as they both manipulated taxable income. Agency theory commonly refers to the inconsistency between shareholder wishes and management behavior, as explained by Sadjiarto et al. (2020).

Firms that take advantage of the TP strategy to reduce increased tax burdens will be involved in REMs, which tend to be reluctant to stand too far from their industry counterparts in terms of tax burden because companies want to avoid suspicion from tax authorities, regulators, or investors. (Armstrong et al., 2019). This research is based on REM (Roychowdhury, 2006), which implies managerial activity to transform the potential benefits of corporate TP for EM. Managers can perform strategic management by choosing between two methods of earning management: EM (EM) or REM (Nafis & Sebrina, 2023). The political cost theory influences the motivational selection of earning management methods that managers implement. Based on political cost theory, companies tend to choose accounting policies to minimise political costs (Tartono et al., 2021). In this literature, the REM approach involves implementing abnormal cash flow operations (Vintya et al., 2018).

This research makes the following contribution: First, the company data collection extends previous research on FD, TP, and REM in Indonesia. Second, the study aims to examine the impact of a company's FD conditions as an independent variable and an abnormal cash flow operation as a moderating variable on the initiation of TP in manufacturing companies in Indonesia. The rationale for this decision stems from the fact that management behaviour, when making financial-related decisions, considers both costs and benefits, aiming to minimise tax payments by reducing profits before taxes through TP strategies (Dhamara & Violita, 2018; Samailaa & Siyanbolab, 2021).

Literature Review

Agency and Political Cost Theories

According to Duhoon & Singh (2023), the agency theory provides an explanation for managers' TP decisions. The manager, acting as an agent in TP, will have the opportunity to increase their incentive with a significant profit (Dianawati & Agustina, 2020). Therefore, exercising control over agents is necessary to ensure thorough dissemination of information and ensure stakeholders understand the true state of the company (Toly et al., 2020). Objective conflict can occur when a company is in FD, according to agency theory. High debt can lead to FD, which in turn leads to agency costs (Saputri, 2018). Firms conduct TP as a form of rational strategy from management to reduce agency costs in companies experiencing FD (Ariff et al., 2023). TP then includes a rational strategy to reduce agency costs for companies in FD (Ariff et al., 2023). They also contend that a conflict of interest arises due to a difference of purpose between the company and the government, motivating the company to reduce the tax burden it must pay to the tax authority.

One of the political costs that companies pay is the payment of corporate taxes to the government, because political costs play an important role in TP decisions (Wang et al., 2022). Selecting accounting policies that reduce profit-raising helps divert attention from the government and the public (Salama et al., 2022). As a result, this study supports the

corporate accounting scheme through real EM, which shifts the company's focus from FD to tax payment planning during a specific period.

REM through Abnormal Cash Flow Operations

A deviation from normal business practices to manipulate profits is defined as REM (Ali, 2019). This research primarily focuses on REM through abnormal cash flow operations. Managers can manipulate operational cash flows in several ways, specifically through accelerating sales using a discount price or a softer credit requirement in a running period, making payments to suppliers by increasing cash purchases, and raising purchases that will raise the price of sales goods, resulting in a decrease in the company's profits according to the EM pattern (Roychowdhury, 2006; Hartono et al., 2018; Al-Haddad et al., 2020). The company is doing this to increase sales volumes, which are likely to decrease when it returns to prices in the next fiscal year.

Hypotheses Development

Several studies, like those by Ariff et al. (2022), Maulana et al. (2018), and Monika & Noviari (2021), explain the association between FD and tax preparation. In this literature, there is a considerable negative relationship between FD and TP. Their findings show that enterprises in financial difficulty have fewer chances for TP. According to agency theory, a corporation in FD will adopt a logical strategy to reduce agency expenses with a small TP.

TP is most likely a broader review of a company's economic foundations, cash flow patterns, and internal resource evaluation in managerial decision-making (Xu and Zheng, 2020). Gabrielli & Greco (2022) explain the impact of TP on corporate financial failure in different stages of the company's life cycle. The study shows that companies that are experiencing a financial downturn have a significant negative correlation with TP. The use of complex TP strategies can worsen the information asymmetry between management and shareholders. (Ariff et al., 2022). The first hypothesis in this study is based on the descriptions provided above.

H₁: Financial distress has a negative impact on TP.

Companies experiencing FD will have a greater motivation to undertake EM due to higher pressure compared to financially sound companies (Li et al., 2020; Jacoby et al., 2019). In line with the political cost theory described earlier, companies would be more likely to undertake earnings-raising rill management that lowered revenue during the financial crisis to avoid political costs such as higher taxes and strict regulation (Hamza dan Zaatir, 2021). Agency theory also explains the relationship between TP and EM.

As for Tanko's study (2022), it not only tested the relationship of independent variables with TP alone; his research also tested REM as a moderation variable. The study demonstrated that the interaction of independent variables and REM as moderators had a positive influence on TP in Nigerian manufacturing firms. The existence of REM actions in the company will strengthen or weaken the relationship between the independent variable and TP. According to Nugroho and Firmansyah's (2017) analysis of the REM variable, only managing real earnings through sales manipulation has a significant impact on improving TP. It can be understood that the greater sales returns resulting from the EM of unreasonable discount granting can boost a company's TP as it makes the difference in earnings from accounting and taxation even greater. A study by Kaÿdonski & Jewartowski (2019) showed a significant negative link between REM and taxation in the Polish country, which means that the companies involved in REM are the ones that do the least in TP. Based on the arguments presented above, the study's second hypothesis can be expressed as follows:

H₂: REM lessens the negative impact of financial distress on tax planning.

Methodology

Sample Criteria and Data Sources

This study obtained the data source from the Refinitive database by classifying the Global Industry Classification Strandard (GICS) identification code for manufacturing sector companies in the period 2018–2022, using two-digit codes of 20. The sample study used the manufacturing sector, as manufacturing contributed significantly to Indonesia's gross domestic product. The sample selection criteria are:

a. Manufacturing sector companies listed on the Indonesian stock exchange (IDX) for the period 2018–2022.
b. At least a year has passed since the manufacturing industry's listing on IDX.
c. The firms did not experience any suspension or termination of stock trading transactions during the period 2018–2022.

Table 1. The Procedure for Sampling Research

Criteria	Numbers
Manufacturing companies listed on the IDX at the end of 2022	133
Sample periods	5 years
Number of observations (133 firms x 5 years)	665
Firms that have not been listed in the IDX for a year	(119)
Firms that had been suspended in the sample periods	(4)
Total observations as the final sample	542

Source: processed data

Model Regression Specifications

The regression analysis equations used in this study are:
Model 1 to test hypothesis 1, shown by $\beta 1$:

$$RES\_BTD_{it} = \alpha_{0it} + \beta_1 FD_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 TANG_{it} + \varepsilon_{it} \tag{1}$$

Model 2 to test the hypothesis 2, shown by $\beta 3$:

$$RES\_BTD_{it} = \alpha_{0it} + \beta_1 FD_{it} + \beta_2 REM_{it} + \beta_3 FD_{it} * REM_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 TANG_{it} + \varepsilon_{it} \tag{2}$$

Dependent Variable Measurement

This study measured TP using the residual formula of book-tax-difference (BTD) (Desai & Dharmapala, 2006). The BTD can be measured by the difference between pre-tax earnings and taxable income, scaled by total assets. The residual BTD proxy can be seen in the equation below:

$$BTD = \text{Profit before tax} - \frac{CTE}{T} \text{ scaled by total assets} \tag{3}$$

which are
BTD   : Tax planning
CTE   : Current Tax Expense
T   : Statutory tax rate

This research uses T for the corporate income tax rate according to the law. In 2020, Indonesia implemented a decrease in corporate income tax. Taking into account the sample of this study starting in 2018, the corporate compulsory income tax rate before the legislation changes is to apply the rate of 25% for the 2018 tax year and the 2019 tax year (Law No. 36 of 2008 on Income Tax). Further, for the tax years 2020 and 2021, the applicable corporate income tax rates are 22% (Regulation of the Minister of Finance No. 40 of 2023). As well as for the 2022 tax year, the rate remains the same as the previous rate of 22%, in accordance with Law No. 7 of 2021 on Harmonization of Tax Regulations (Regulation of the Minister of Finance No. 40 of 2023).

Samaila & Siyanbolab (2021), and Zeng (2019) suggest that increasing accounting income, decreasing taxable income, or both can magnify the residual value of BTD. In other words, if EM increases income, it will affect BTD. Researchers perform residual

BTD regression to total accruals (TACs) to exclude EM from BTD, identifying it as a residual component of BTD outside EM.

$$RES\_BTD_{it} = \delta_1 TAC_{it} + \varepsilon_{it} \qquad (4)$$

TAC is obtained from pre-tax profits deducted from CFOs and scaled by total assets. The residual value of BTD is a BTD that cannot be explained by earning management (Zeng, 2019). The larger RES_BTD that is generated from the above equation indicates the increasing activity of TP within a company (Samailaa & Siyanbolab, 2021).

Independent Variable Measurement

This research on financial distress (FD) uses the modified Altman Z-Score model (1968) with the following equation:

$$Z = 1{,}2X_1 + 1{,}4X_2 + 3{,}3X_3 + 0{,}6X_4 + 0{,}99X_5 \qquad (5)$$

where are:

X_1 : Net Working Capital/Total Asset (NWC_TA)
X_2 : Balance of Retained Earnings/Total Asset (RE_TA)
X_3 : Earnings Before Interest and Taxes/Total Assets (EBIT_TA)
X_4 : Market Value of Shareholders' equity/Total Liabilities (MVSE_TL)
X_5 : Sales/Total Assets (SALE_TA)

There are several criteria for reading the Z-value results. If the Z value is < 1.8, then the company is experiencing FD. If the Z value is between 1.8 and 2.99, it indicates that the company is in the grey area. If the Z value is > 2.99, the company is not in the FD condition (safe zone). A higher Z value indicates that a company is not experiencing FD. This study multiplies the Z value by -1 to increase the size of FD in the regression analysis (Dang & Tran, 2021). Furthermore, after obtaining FD by -1, this study uses dummy variables to distinguish companies that experience FD. This study assigns a value of 1 to a company whose Z value is above the median point, indicating that it is experiencing FD, and a value of 0 to a company whose FD by -1 value is below the median point, indicating that it is not experiencing FD.

Interaction Variable Measurement

The research focuses on a REM approach through abnormal cash flow operations that moderate the FD against the TP. The study considers abnormal cash flow operations as a proxy for REM (Roychowdhury, 2006; Hartono et al., 2018). According to Roychowdhury, the REM equation, calculated through the abnormal CFO, ensures that the average for each industry year is zero. As explained by Andreas (2017), if the average of the entire sample of abnormal operating cash flow is below 0, then the sample uses REM through CFO abnormals. Conversely, if the mean of equation (3) yields a value greater than 0, then the sample does not employ REM through CFO abnormals. Here is the REM regression model based on operational cash flow.

$$\frac{CFO_t}{A_{t-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{A_{t-1}}\right) + \beta_1 \left(\frac{S_t}{A_{t-1}}\right) + \beta_2 \left(\frac{\Delta S_t}{A_{t-1}}\right) + \varepsilon_t \qquad (6)$$

where:

CFO_t : Cash flow operation in year t
A_{t-1} : Total assets in year t-1
S_t : Sales in year t
ΔS_t : Sales in year t minus by sales in year t-1
$\alpha_0\ \alpha_1$: *Constants*
ε_t : *Error term* in year t (REM_CFO)

Controls Variables

In this study, the controlling variables selected are the size of the company (SIZE), the age of the organization (AGE), and tangibility. Size is the natural logarithmic value of the total assets. Companies can use SIZE to identify their activities, particularly their TP efforts (Tjondro & Tjaraka, 2024; Tanko, 2022). This study measures AGE from the date

the company entered the IDX. The higher the asset's tangibility, the greater the company's long-term debt (Lestari & Roshinta, 2022).

Analysis and Discussion

Descriptive Statistics

Table 3 shows the total observations surveyed from 2018 to 2022. They found as many as 542 companies with observations per year for each dependent, independent, moderation, and control variable. Table 3 not only describes the sample number but also shows descriptive statistics that yield mean values, medians, standard deviations, minimum values, and maximum values. The average TP rate as determined by RES_BTD was -0.005%. The negative value explains the fact that corporate taxable income is higher than the income of manufacturing companies as a sample during the study period. It shows that companies are less involved in TP. Table 3 also produces a standard RES_BTD deviation of 11.6%, which explains that the spread of observation data is very wide compared to average values. The RES_BTD result also yields a minimum value of -1.375, a maximum value of 0.3808, and a median of 0.003.

Further, Table 3 shows the result of the independent variable, which is FD. As explained in the definition of the variable in section 3, FD in the study multiplied -1. The FD result has an average value of -4.9100 and a median value of -1.89. The negative results explain the company's increasing financial difficulties. Additionally, this study group the FD into two categories of dummy variables (FDDUM). Therefore, a company with a value above the median indicates poorer financial conditions and a higher risk of bankruptcy. The standard FD deviation is 27.84, with minimum and maximum values of -436.8 and 24.73 respectively. The average value for FDDUM is 0.501 and has a standard deviation of 0.500.

Table 3 displays an average REM value of 0.0167. The mean value below 0 indicates significant variations across all sample companies, indicating abnormal CFO performance. It not only shows average values; the highest REM values are 1.097, the lowest are -0.891, and the standard deviation is 0.143. Table 3 also displays the average size result of 28.030, with a minimum score of 24.57 and a maximum value of 33.66. The other control variable, AGE, has minimum and maximum values of 1 year and 40 years, respectively, indicating a range of variations in the age of the research company. Further, the average TANG value of 0.399 shows that the average proposal of the PPE divided by the total existing assets is 40%, with a minimum value of 0.0006% and a maximum of 94%.

Table 1. Descriptive Statistics

Variable	N	Mean	Median	SD	Min.	Max.
RES_BTD_{it}	542	-0.000052	0.003	0.116	-1.375	0.381
FD_{it}	542	-4.910	-1.888	27.84	-436.8	24.73
$FDDUM_{it}$	542	0.502	1.00	0.501	0	1
REM_{it}	542	0.017	0.015	0.143	-0.891	1.097
$SIZE_{it}$	542	28.03	27.98	1.721	24.57	33.66
AGE_{it}	542	12.82	9.00	10.26	1.00	40.00
$TANG_{it}$	542	0.399	0.380	0.277	0.000006	0.936

Source: processed data

Table 4 describes FDs' classification based on a sample of companies with complete five-year data. There are 85 out of 124 companies. For companies in financial distress (FDs), the number increased in 2018–2022. However, the increase did not reach 10 companies. According to Anugerah, (2022), his research proves that there is no significant difference between manufacturing companies experiencing FDs compared to the years of economic challenges that occurred. Manufacturing firms in Indonesia, when faced with economic challenges, have already implemented the appropriate strategies to improve their financial conditions. Table 4 also demonstrates an increase in the secure

zone during the 2021-2022 period. Therefore, we can assert that managers in manufacturing companies are swiftly adjusting to evolving economic fluctuations.

Table 4. Financial Distress's Firms Complete Data 5 Years (85 Out of 124 Firms)

Classifications	2018	2019	2020	2021	2022
Total firms	85	85	85	85	85
Total firms in financial distress zone	39	44	46	45	42
Total firms in grey zone	22	19	21	16	21
Total firms in secure zone	24	22	18	24	22

Source: processed data

Pearson Correlation

Table 5 describes the correlation between variables. The coefficients of the variable correlations range from -0.2317 to 0.4561, or, in other words, less than the threshold of 0.8 (Chao, 2018).

Table 2. Pearson correlation

	RES_BTD_{it}	FD_{it}	$FDDUM_{it}$	REM_{it}	$SIZE_{it}$	AGE_{it}	$TANG_{it}$
RES_BTD_{it}	1						
FD_{it}	-0.0120	1					
$FDDUM_{it}$	-0.0780	0.1917	1				
REM_{it}	0.4561	-0.0198	-0.1979	1			
$SIZE_{it}$	0.0322	0.1399	0.1629	0.0887	1		
AGE_{it}	0.0160	0.0555	-0.0237	-0.0720	0.2675	1	
$TANG_{it}$	0.2097	0.1280	0.1337	0.1504	0.2317	0.0697	1

Source: processed data

Panel Estimation Model

This study conducted multicolinearity and heteroskedasticity tests, and the results showed that the model was free of multicolinearity and heteroskedasticity problems. The variance inflation factor (VIF) values range from 1.673 to less than 2, which means there is no multicollinieriety problem. Our research used the central limit theorem on the normality test, which assumes data from more than 30 observations is normally distributed.

Three test stages lead to the selection of the optimal regression model. First, the Chow or F test determines whether the CEM model or the Fixed Effect Model (FEM). The second one is the Breush-Pagan test, which determines if the estimated model is a fixed effect or a random effect. Lastly, the Hausman test determines the correct fixed effects or random effects model as an estimate model for the analysis of hypotheses. Table 6 displays the test results, indicating that the model eligible for regression in this study is a random effect model.

Table 3. Panel Specification Results

	(1) Controls Only	(2) Based Model	(3) Interaction Model
Panel data estimation			
F Test	2.71E-05	0.000135317	1.11E-05
Result	Fixed	Fixed	Fixed
Random effects estimator			
Breusch-Pagan test	0.00247707	0.0110684	0.00143696
Result	Random	Random	Random
Hausman test	0.721144	0.427069	0.680538
Result	Random	Random	Random
Summary	Random	Random	Random
Heteroskedasticity		0	

Source: processed data

Result Hypotheses

Table 7 displays the regression results of the study in columns (2) and (3). Column (2) shows a negative effectiveness of -0.0266, which is less than the significance level of 0.05. The goodness of fit test yields a determination coefficient (adj. R2) of 0.06670 and a p-value (F-Statistics) of 0.00056, enabling analysis of Model 1's regression. This result explains why a company is experiencing high FD conditions, the company's RES_BTD value will decrease. This explains why the company has not been able to do TP when it is in financial difficulties. On the contrary, if the company does not experience FD (it is in a safe zone), then its tendency to do TP is higher. In other words, a company is considered free of FD if its Z value is more positive. This study accepts the first hypothesis, which suggests that companies experiencing high levels of FD have a negative impact on TP.

Companies that are experiencing FD reflect that they are struggling with small profits, so they are considered too risky to undertake TP actions. The company will first try to recover its financial situation and expect the BTD's value to not rise. If the value of RES_BTD rises during a period of financial difficulties, it can negatively impact the company's image in the annual financial statements, as it becomes more challenging to cover higher income tax expenses than net income before tax. Therefore, when a company is experiencing FD, it will be increasingly minimising its TP. Table 7 also yields the control variable TANG, which has a significant positive relationship at a rate of 1% of 0.1033. Significant TANG means that the larger the company's PPE, the greater its tendency to do TP. However, the other control variables are size and age, which produce insignificant relationships to control the influence of dependent variables and independent variables.

Table 7 in column (3) shows β_3 that the FDDUM*REM combination produces a determination coefficient (adj. R^2) of 0.248871 and the prob value (F-statistics) is 0.000000000812, meaning it belongs to the goodness of fit test so that Model 2 regression can be analyzed. The FDDUM*REM coefficient produces a REM relationship that does not weaken or strengthen the negative influence of a FD company on the high or low of a company's ability to carry out TP (0.2300, p-value > 0.05). This means that the relationship between FDDUM and BTD is different when they interact with REM. Firms encounter financial difficulties and implement accounting policies to manage their profits through irregular cash flow activities. This means that the company will be more secure. The company's fear of losing its competitive edge prevents it from making TP decisions, leading to the rejection of the H2 results in this study.

Table 7. Full Sample Hypothesis Regression Test Results

	(1) Variable Control	(2) Based Model	(3) Interaction Model
Konst.	−0.1813	−0.2208	−0.0416
$FDDUM_{it}$		−0.0266**	−0.0022
REM_{it}			0.2763***
$FDDUM * REM$			0.2300
$SIZE_{it}$	0.0051	0.0069	0.0003
AGE_{it}	0.0001	0.00005	0.0006
$TANG_{it}$	0.0949031***	0.1033***	0.0587**
Adj. R-squared	5.095%	6.670%	24.887%
Prob. (F-statistics)	0.00052	0.00056	0.00000
N	542	542	542

*** ** * Sig. at level 1%, 5%, and 10%
Source: processed data

Additional Analysis

Table 8 produces a significant relationship on both regressions. The results showed a positive coefficient for low REM and a negative outcome for high REM. The results

suggest that companies with small REMs and high FD tend to exhibit improved TP, as evidenced by a positive coefficient of 0,000170 and a significant rate of 10%. This means that in a sample of companies with low REM, the test results show that FD causes an increase in BTD. This study concludes that the low REM sample results are not robust, as this result is inconsistent with the full sample test results.

The result shown in column (2) has a negative coefficient of −0.000152 with a significant rate of 5% (p-value < 0.05). This means that in a sample of firms with high REM, the test results show that FD causes a decrease in BTD. This study concludes that the high REM sample results are robust, as this result is consistent with the full sample test results. Therefore, we can conclude that firms with high and low REM categories will differ in their TP behaviour during high FD.

Table 8. Subsample of High and Low REM

	(1)	(2)
	Low REM	**High REM**
Konst.	0.1397	−0.2071***
FD_{it}	0.000170*	−0.000152**
$SIZE_{it}$	-0.0037	0.0049***
AGE_{it}	-0.0005	0.0012***
$TANG_{it}$	0.0310	0.0534***
Adj. R-squared	0.0321	0.2840
Prob. (F-statistics)	0.0015	0.00000
N	269	273

*** ** * Sig. at level 1%, 5%, and 10%
Source: processed data

Discussion

Based on the above results, this study aligns with previous research by Ariff et al. (2022), Maulana et al. (2018), and Monika & Noviari (2021), which suggests that companies may reduce their TP actions when facing FD. This is consistent with agency theory, where the company's actions that minimise TP are classified as a rational strategy to reduce agency costs (Ariff et al., 2023). If managers take TP actions when the company experiences FD, it will increase the risk of a negative company image (Cita & Supadmi, 2019). The main focus that managers need to improve first is the company's financial condition before it enters bankruptcy. Conversely, if the company's financial condition increases, managers will look for ways to choose techniques and methods of valuing assets, liabilities, capital, income, and expenses that do not conflict with government regulations relating to TP (Putra, 2018). As the company's financial condition improves, the obligation to pay taxes will increase, prompting management to engage in TP to influence the company's tax payments. Therefore, as a manager, the agent must provide comprehensive information to the principal, investors, and tax authorities, enabling the latter to understand the true state of the company (Toly et al. 2019).

When this study regresses Model 2 on a full sample of companies that carry out REM accounting policies, it shows a relationship that has no effect between FD and company actions in conducting TP. These moderating variables interact, which explains why the company's REM does not weaken or strengthen the negative effect of the independent variable on the dependent variable. Furthermore, this study conducted additional analysis by grouping companies into two categories, namely low REM and high REM. The combination of FD and low REM produces a negative interaction. This indicates that the company's small actions, such as implementing more flexible (soft) credit terms during the current period while it is in FD conditions, will reduce the number of TP actions. This is in line with previous literature, namely Kaÿdonski & Jewartowski (2019), which states that the higher the level of FD and EM practices in the company, the lower the level of TP.

Conversely, the more a company engages in REM manipulation through abnormal operating cash flow, the stronger the positive moderation interaction becomes. The interaction indicates that the company's actions, such as making purchases that increase COGS or accelerating sales using increasingly large discount prices, can weaken the negative relationship between FD and TP and shift its direction from negative to positive. This finding is in accordance with the political cost theory, which explains that companies will tend to shift their income from this period to future periods by choosing accounting policies that can overcome small profits (Hamza and Zaatir, 2021). According to Tanko (2022), the combination of independent variables and REM has the potential to motivate companies to maximise their TP. The study also indicates that managers who engage in extensive REM activities anticipate improved liquidity index conditions, increased interest payments, and increased opportunities to address the company's financial issues. The results of this study's additional analysis explain that companies that perform low and high REM when experiencing high levels of FD have different TP behaviours.

Conclusions and Recommendations

The findings of this study indicate that companies with increasing financial distress (FD) conditions have a tendency to become smaller and smaller in their tax planning (TP). Management has limits in regulating financial plans, investments, and taxes. This study was unable to demonstrate that companies with high financial distress and REM mitigate the negative correlation between financial distress and tax planning. However, based on additional analysis, the study found that in the REM high subsample, companies with increasing financial distress did not take advantage of tax planning. Unlike the results on the low REM subsample, companies with higher financial distress are increasing their use of tax planning. This study has practical implications for regulators, as it reveals that manufacturing companies experiencing high financial distress often do not utilise tax planning due to their limited capacity to regulate financial, investment, and tax strategies. Only a small percentage of these companies, which fall into the low REM category, utilise tax planning.

This study's limitation lies in the measurement of moderating variables, which can include all REM measurements. This study's limitation is that it only includes REM through abnormal cash flow operations (Abn. CFO). In a more representative manner, future researchers could explore more comprehensive REM measurements by incorporating REM through abnormal cash production costs (Abn. PROD) and abnormal cash discretionary expenses (Abn. DISCR). This approach would broaden the scope of research and provide insights from various financial ratios.

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