Tax Audit Effectiveness: Detection of Tax Sheltering Through Implication Book Tax Differences on Earnings Management

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Abstract. The objectives of the study were to (1) analyze the effectiveness of tax audits by detecting earnings management and tax sheltering and those carried out by audited taxpayers, (2) to examine the effect of Book Tax Difference on earnings management, and (3) to examine the impact of earnings management on tax sheltering. This research uses a quantitative approach with philosophical considerations of positivism, belongs to applied research, and includes descriptive research. The research design used is correlational research, namely testing and estimating the relationship of many variables either partially or simultaneously by using the multiple regression method of panel data. This study uses panel data regression analysis with (1) Common Effects using an ordinary least square (OLS) approach, (2) Fixed Effects using a dummy variable technique, (3) Random Effect Model (REM) or Generalized Least Square techniques. The research data was obtained from the Financial Statements of Manufacturing Companies listed on the IDX (2017-2020). The results of this study indicate that Earning Management is influenced by Book Tax Difference, Tax Sheltering is influenced by Earning Management, and the effectiveness of tax audits can be achieved by detecting earnings management and tax sheltering and by audited taxpayers. The novelty of this research is that the understanding of earning management and tax sheltering practices by taxpayers can be supported by providing access for tax examiners to audited financial statements and financial audit information.

1. Introduction

Tax audits have a direct impact on taxation sector revenues through investigations of underpaid taxes, as well as the value of interest and penalties that must be paid by taxpayers who are audited. Tax audits also have an indirect impact by preventing future non-compliance, both for prevention for audited taxpayers and for unaudited taxpayers [1]. The tax audits carried out generally result in tax compliance, but in practice the tax audit process often ignores the detection of tax sheltering by the Taxpayer being audited.

Many studies have found that tax audits can increase tax compliance in the next period (post-audit tax), non-compliant taxpayers are found, and taxpayers are determined to comply. In particular, tax audit results are not a perfect measure of actual tax compliance, given the lack of demonstrated ability of tax audits to detect all evasions, so identifying audit effectiveness and its effect on truly compliant and non-compliant taxpayers is a challenge [1]. The effectiveness of the tax audit is indicated by the ability of the tax audit to detect non-compliance in an audit and to be able to provide taxpayer responses to law enforcement. The deterrent effect for taxpayers specifically on the tax audit depends on the results of the tax audit [2]. This raises the question of how the strategy increases the effectiveness of the tax audit in terms of the impact on special prevention for taxpayers who are audited for law enforcement. The

research question is whether the effectiveness of a tax audit depends on the aggressiveness of tax reporting as indicated by tax sheltering and earnings management activities. This study answers this question by analyzing the difference between commercial income and taxable income according to tax rules (Book Tax Differences). In general, the reporting of commercial accounting and tax accounting carried out by the audited taxpayers is different and this difference gives rise to Book Tax Differences. Although specifically Book Tax Differences does not guarantee any differences related to deterministic deviations or tax aggressiveness [3], it is important to conduct an analysis to be able to answer the possibility of tax sheltering of the audited taxpayers. This study also examines the effect of Book Tax Difference on tax sheltering and earnings management as indicators of audited taxpayers' tax reporting behavior. Testing Book Tax Difference on tax sheltering and earnings management measures to determine whether the effect has a differential effect on tax payments which are distinguished by tax reporting behavior. Addressing these questions with field data is difficult, even problematic, because tax agents usually do not know the taxpayer's actual tax liability. Most research with respect to Book Tax Differences relies on a measure of the total difference between commercial accounting income and estimated taxable income, and a major challenge for most investigations is the fact that actual tax data are not available. As a result, most of Book Tax Differences research uses public financial statement information. Research [4] determined a significant positive relationship between Book Tax Differences and opportunistic reporting indicating earnings management measures, other papers reported an insignificant [5] or even a significant negative relationship [6]. Research related to Earnings Management and Tax Sheltering actions generally includes indicators of detected or suspected tax smuggling or tax contingencies. Several research results show that tax compliance is significantly related to Earnings Management [7]. The results of the study [9] concluded that high tax compliance hinders earnings management and overall tax avoidance.

The effectiveness of the tax audit in this study is defined as the share of unpublished income detected by the tax agency in the tax audit [10]. This addition allows us to test the effectiveness of the tax audit by testing the Book Tax Difference that affects tax sheltering and earnings management. An important dimension in identifying the effectiveness of a tax audit, among others, is to take into account the possibility that the tax audit cannot detect all income reported by taxpayers, making it possible to test whether an ineffective tax audit can increase the tendency of taxpayers to carry out tax sheltering and earnings management. This explanation is the difference between this study and previous studies.

This study aims to test the Book Tax Difference that affects earnings management, the impact of earnings management that affects tax sheltering and test the effectiveness of tax audits by detecting earnings management and tax sheltering and which is carried out by the audited taxpayers. This design uses a quantitative analysis research method that allows to formulate a tax audit implementation process strategy that allows special precautions that can encourage post-audit tax compliance. This study shows an analysis of the tax audit strategy that takes into account tax sheltering and earnings management carried out by taxpayers by understanding technically the Book Tax Difference which has an impact on tax sheltering and earnings management. An effective tax audit can increase compliance, where taxpayers will pay taxes on the part of their income that is not reported after a tax audit is carried out which detects all unreported income, while an ineffective tax audit increases non-compliance after a tax audit, the effect is not reduced by conducting a tax audit.

2. Method

This study uses a quantitative approach with philosophical considerations of positivism [11] and belongs to applied research, and includes descriptive research [12], which explains the effect of Book Tax Difference with earnings management and its impact on tax sheltering, in analyze the effectiveness of tax audits. While the research design used is correlational research, namely testing and estimating the relationship of many variables either partially or simultaneously using the multiple regression method of panel data [11].

This study involves three Book Tax Difference variables as independent variables, earnings management, and tax sheltering as the dependent variable. Then determine earnings management and

tax sheltering actions as independent variables in increasing the effectiveness of tax audits. Tax sheltering is measured using the current year's effective tax rate (ETR) indicator. The lower the company's ETR value, the higher the level of tax aggressiveness. A low ETR indicates a smaller tax burden than pre-tax income [13]. ETR is obtained from the division of the current year's tax by income or profit before tax for the current year [14]. The ETR value ranges from 0-1, the lower the ETR value owned by the company, the higher the level of tax aggressiveness, and vice versa. Earnings management variable is measured by the discretionary total accrual (DA) indicator, calculated by the following Jones modification formula (Dechow et al. 1995): $DA_{it} = (TA_{it}/A_{avg}) - mNA_{it}$, where TA = total accruals; A = total assets; R = revenue; AR = accounts receivable; PPE = gross value of property, plant, and equipment; NA = normal accruals; DA = discretionary accruals; and Aavg = average total assets). Earnings management criteria are income increasing if DA is positive, income smoothing if DA = zero, and income decreasing if DA is negative. Income smoothing is based on the belief that a stable profit figure from period to period will lead to an increase in firm value [15]. The difference between accounting profit and fiscal profit (Book Tax Differences) is the difference between accounting profit and fiscal profit. Book Tax Differences variables in this study used large positive book tax differences (LPBTD) and Small Book Tax Differences (SPBTD). Large positive book-tax differences (LPBTD) is the difference between accounting profit and fiscal profit, where accounting profit is greater than fiscal profit. Small book-tax differences (SPBTD) are the remaining subsample from the order after the determination of LPBTD.

The population in this study is data related to the Financial Statements of Manufacturing Companies listed on the IDX (Years 2012-2021), arranged in the form of panel data. The sampling technique used was purposive sampling technique. The criteria used in the selection of the sample are companies listed on the IDX in 2012-2021 with successive profits in the same period. The number of companies that are used as samples are 10 companies. The research units are 100 (10 years x 10 companies). The ten companies are: PT. Duta Pertiwi Nusantara, Tbk (DPNS). PT. Ekadharma International, Tbk (EKAD). PT. Congratulations Perfect, Tbk (SMSM), PT. Indofood CBP Sukses Makmur, Tbk (ICBP), PT. Nippon Indosari Corporindo, Tbk (ROTI), PT. Sekar Laut, Tbk (SKLT), PT. Siantar Top, Tbk (STTP), PT. Kimia Farma (Persero), Tbk (KAEF), PT. Kalbe Farma, Tbk (KLBF) and PT. Unilever Indonesia, Tbk (UNVR).

The research objects used are BTD, TS and EM. The type of data used in this study is secondary data obtained from the website www.idx.co.id. As for the data on the effectiveness of the tax audit, it was obtained from the primary data of the tax examiner through a questionnaire as a research instrument. The respondents of this test are 12 tax examiners.

This study uses panel data regression analysis with 3 panel data regression model estimates for testing hypothesis 1 (H1) and hypothesis 2 (H2), namely: common effect (CE), fixed effect (FE), or random effect (RE). Common Effect uses the ordinary least square (OLS) approach, which is a method that ignores variations in units of observation and time, so it is assumed that the behaviour of the company's data is the same in various time periods [16]. The constants and their regression coefficients do not change over time. $Y_{it} = X_{it}\beta + e_{it}$ where e_{it} = error component which is assumed to have a mean of zero and the variance is homogeneous in time series; β = effect of change in X which is assumed to be constant in time order. Fixed Effect assumes that there are differences between individuals and can be accommodated from differences in intercepts [17]. Fixed Effect uses a dummy variable technique to capture differences in intercepts between companies, even though the intercepts are different for each subject but the value does not change over time. $Y_{it} = X'_{it}\beta + c_{it} + d_{it} + e_{it}$, where c_i = unobserved individual-specific effect; dt = time dependent constant. Meanwhile, the Random Effect Model (REM) assumes that disturbance variables are interrelated over time and between individuals, and differences in intercepts are accommodated by the error terms of each company. The advantage of using REM is that it eliminates heteroscedasticity [18]. $Y_{it} = X'_{it}\beta + e_{it}$ and $e_{it} = U_{it} + v_{it} + W_{it}$. Selecting the regression model with the Chow test and Hausman test. Chow Test to determine whether to choose the Common Effect model or Fixed Effect, Hausman Test, to choose whether the Fixed Effect or Random Effect [19].

Prior to further data analysis, classical assumptions were made, including normality distribution (Jarque-Bera test), heteroscedasticity (Breusch Pagan Godfrey test), autocorrelation (Durbin-Watson test), multicollinearity (Variance Inflation Factors test) and linearity test (Ramsey reset test).

The test method for the third hypothesis (H3) is a quasi-experimental method (quasi-experimental) with a research design using a non-equivalent control group design where there are two groups, namely earning management and tax sheltering. The effectiveness test was carried out by calculating the difference between the two means by calculating the normality test, homogeneity test and t test using the dependent test formula and the Mann Whitney test and the normalized gain test.

3. Results and Discussion
3.1 Panel Data Regression Analysis Results
Panel data regression analysis was used to test hypotheses for research hypothesis1 (H1) and research hypothesis2 (H2). This study did not examine the relationship between Book Tax Differences and tax sheltering through earning management.

3.1.1 Panel Data Model Estimation
Based on the objectives to be achieved in this study, to determine the parameters of the best panel data regression model and determine the factors that affect tax sheltering using panel data regression analysis. There are three model estimates in the panel data, namely CEM, FEM and REM.

Table 1. Output of CEM, FEM and REM Estimation

Variabel	Output of CEM Estimation		Output of FEM Estimation		Output of REM Estimation	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Intercept	0,1764	$2,075 \times 10^{-7}$	-	-	0,1243	0,00366
BTD	0,1854	$2,1 \times 10^{-8}$	0,31403	$2,1 \times 10^{-8}$	0,1721	$2,1 \times 10^{-8}$
Intercept	0,1123	$2,012 \times 10^{-7}$	-	-	0,1342	0,01453
EM	0,1556	$2,1 \times 10^{-8}$	0,4121	$2,1 \times 10^{-8}$	0,1832	$2,1 \times 10^{-8}$

The model estimation using the CEM approach assumes that the intercept and slope are constant throughout the time period and units. Based on the output results in Table 1 the BTD variable is significant in the model because the p-value is smaller than the significance value. The estimation of the CEM model is EMit = 0.1764 + 0.1854 BTDit. Based on the equation of this model, it can be concluded that the Book Tax Differences variable has an effect on earning management. Likewise, the FEM estimation results show that the Book Tax Differences variable is significant in the model and has an effect on earnings management with the FEM model estimation being EMit = 0i+ 0.31403 BTDit. The same result is shown with the REM estimation results with the REM model is EMit = 0.1243 + 0.1721BTDit. The Book Tax Differences variable in each estimation model has a positive coefficient, this means that every addition to the Book Tax Differences variable, the earning management value will increase by the coefficient. The significance of earning management is also shown in the results of the estimated output of CEM, FEM and REM (Table 5.1) for the model and has an effect on tax sheltering. The earning management variable in each estimation model means that every addition to the earning management variable, the value of tax sheltering will increase by the coefficient. The estimation of the CEM model is TSit = 0.1123 + 0.1556 EMit. The estimation of the FEM model is TSit = 0i+ 0.4121 EMit. and the estimation of REM with the REM model is TSit = 0.1342 + 0.1832EMit.

3.1.2 Selection of Panel Data Regression Model
The results of the Chow test conducted to determine which model is better to use between CEM or FEM indicate that the better model to use is FEM. Where in Table 2 the p-value results in cross-section F as an effect test are 4.1756×10^{-3} ($<\alpha=0.05$). The Hausman test results show that the better model used

between FEM and REM is REM. In Table 2 the p-value of the Hausman test shows a value greater than the significance level ($<\alpha=0.05$), so it fails to reject Ho.

Table 2 Output of Chow's Test and Hausman's test

Output of Chow's Test			Hausman's test		
Effect Test	Statistic	p-value	Test Summary	Chi-Sq. Statistic	p-value
Cross Section F	4,983	$4,1756 \times 10^{-3}$	Cross Section Random	1,7783	0,37

3.1.3 Checking Panel Data Regression Equation
Examination of the panel data regression equation consists of the coefficient of determination, simultaneous test (F test), and partial test (t test). The R-squared value in the panel data regression model in Table 3 uses the random effects model method with an individual effect (cross section) of 0.29891. This means that Book Tax Differences and earning management contribute 29.891% to the tax sheltering variable. Tax sheltering can be explained by the model by 29.891% and the rest is explained by factors outside the model studied.

Table 3. Determination Coeff, Output of F Test and T Test

Output of Det Coeff		Output of F Test		Output of T Test			
R-Squared	Adj. R-Squared	F Stat	p-value	Variabel	Coefficient	Std. Error	p-value
0,29891	0,29882	11021,4	$2,1 \times 10^{-8}$	Intercept	0,1243	0,01654	0,00366
				BTD	0,1721	0,001076	$2,1 \times 10^{-8}$
				Intercept	0,1342	0,01865	0,01453
				EM	0,1832	0,001328	$2,1 \times 10^{-8}$

The F test is used to determine the Book Tax Differences and earning management variables simultaneously significantly affect the tax sheltering variable. Based on the output of the F test in Table 5.3, the p-value is 2.1×10^{-8}, a value smaller than the significance level ($<\alpha=0.05$), so reject Ho. This means that the independent variables simultaneously have an influence on the dependent variable. In the results of the partial test (t test) shown in Table 3, all the independent variables have p-values smaller than the significance level ($<\alpha=0.05$), so Ho is rejected, the independent variables individually have an influence on the dependent variable. The results of this study are in accordance with the results of research [20] that there is a relationship between Book Tax Differences and earning management.

3.1.4 Test Panel Data Regression Model Assumptions
The random effect model does not require classical assumption test because this model uses Generalized Least Square (GLS) estimation. The GLS technique still produces an estimator that is BLUE (Best Linear Unbiased Estimation) even though the data contains autocorrelation.

3.1.5 Interpretation
After estimating the panel data regression model and selecting the best regression model, namely the Random Effect Model (REM) and examining the regression model and classical assumption test, the results obtained are the panel data regression model in general below.
$EM_{it} = 0.1243 + 0.1721BTD_{it}$ ... (1)
Based on this model, assuming other variables are constant, each addition of one unit to Book Tax Differences will give an increase in earning management of 0.1721.
$TS_{it} = 0.1342 + 0.1832EM_{it}$ … (2)

Based on this model, assuming other variables are constant, each addition of one unit to earnings management will give an increase in tax sheltering of 0.1832.

3.1.6 Discussion

Book Tax Differences based on the results of this study are closely related and at the same time have an influence on the earnings management of corporate taxpayers. In accordance with the opinion [21] which states that Book Tax Differences play a role in assessing the quality of earnings reported by management according to excess book income or widening taxable income, which is a potential danger signal that must be investigated, because it can be an indication of deteriorating earnings quality. Similarly, according to [22] that the greater the difference between accounting profit and fiscal profit shows a "red flag" for users of financial statements, and according to [23] that book tax differences can be used as a diagnosis to detect the main cost manipulation of a company. The results of this study are in accordance with the results of research [3] Evers et al., (2016) which showed that Book-Tax Differences indicated the existence of earnings management. Correlation and influence of Book-Tax Differences and earnings management in general, it is suspected that there is a match that can effectively reduce the aggressiveness of financial reporting for tax purposes.

Book Tax Difference consists of Temporary Book Tax Difference, and Permanent Book Tax Difference, can show aggressiveness in tax reporting and is generally calculated based on financial information as the difference between profit before tax and estimated taxable income. Permanent Book Tax Difference as a measure in this research variable because according to [24] it is indicated as aggressive tax reporting, compared to Temporary Book Tax Difference. This is because the Permanent Book Tax Difference reduces taxable income and reduces ETR without affecting financial income reported to owners/shareholders [25]. Earning management practices in this study are in line with research [26] which uses measures aimed at capturing earnings management practices which include: (1) using scale changes in annual earnings and comparing companies; 2) there is an indication that the company is involved in excessive earnings fraud, or a probability measure that indicates the possibility that the company engages in extreme Earnings Management practices; (3) aggregate of measures of earnings management practices: (a) the tendency of firms to avoid small losses; (b) the amount of total accruals relative to the size of operating cash flows; (c) the smoothness of income relative to cash flows (measured as the ratio of the standard deviation of operating income divided by the standard deviation of cash flows from operations); (d) correlation of accounting accruals and operating cash flows.

Based on the results of this study, there is an impact of earnings management on tax sheltering. The results of this study are in line with the results of the study [8] Blaylock et al. (2015) who found that tax compliance is significantly related to earnings management. Relevant to the results of research [9] Tang (2015) which shows that high tax compliance can reduce earnings management actions which have an impact on reducing overall tax avoidance. Earnings management and Tax Sheltering actions, including the implementation of the accrual principle, detecting the presence of indicator variables for smuggling or tax contingencies.

3.2 Tax Audit Effectiveness Analysis Results

Based on the results of descriptive data analysis that the response before understanding earning management from 12 tax examiners got an average score of 6.1. While the results of the data for indications of tax sheltering based on the results of the analysis obtained from 12 tax examiners got an average score of 6.3. This illustrates that the pre-test understanding of earning management and tax sheltering materials is in the sufficient category. After providing a written understanding of the material on earning management and tax sheltering, data analysis was carried out on the responses of 12 tax examiners with an average result of 7.8 and 8.1. This illustrates the ability to understand the material both earning management and tax sheltering there is an increase.

3.2.1 Homogeneity Test and Normality Test

The two groups of materials were declared homogeneous if the significance value was 0.05. Based on Table 4, the significance value obtained is 0.32 ($\geq$ 0.05), then the two groups are declared homogeneous. The second test is the normality test. The results of the initial data analysis for the normality test in Table 4 show the results of the initial data normality test using the Kolmogorov-Smirnova and Shapiro-Wilk tests. The data on the earning management group and the tax sheltering group that were tested both using Kolmogorov-Smirnova and Shapiro-Wilk showed a significance value of 0.05. So, the tested data can be declared normally distributed.

Table 4. Output of Homogeneity Test and Normality Test

Homogeneity Test					Normality Test	
Levene Statistic	df1	df2	Sig.	Group	Kolmogorov-Smirnova Sig.	Shapiro-Wilk Sig.
0,53	1	52	0,32	earning management	0,11	0,08
				tax sheltering	0,13	0,10

a. Lilliefors Significance Correction

3.2.3 T test and Mann Whitney test

Furthermore, the normality test and the difference test of the two averages were carried out using the Mann Whitney test. The normality test of the posttest results showed that the Asymp posttest value. Sig. earning management material is 0.20 0.05, which means the data is normal. While the material for tax sheltering Asymp. Sig. 0.17) 0.05, which means the data is normally distributed.

Table 5. Output of Homogeneity Test and Normality Test

	Uji Normalitas	
Group	Kolmogorov-Smirnova Sig.	Shapiro-Wilk Sig.
earning management	0,20	0,18
tax sheltering	0,17	0,11

a. Lilliefors Significance Correction

In the t-test test of the effectiveness of tax audits using an independent sample t test with the hypothesis: Ho: the effectiveness of tax audits for earnings management and tax sheltering is not significantly different. Ha: there is a significant difference between the effectiveness of tax audit for earning management and tax sheltering. The test criteria if the Asymp value. Sig. 0.05 then Ho is accepted. If the Asymp value. Sig. 0.05 then Ho is rejected. Based on the data in Table 6 shows that the value of tcount is (-5.14) and Asymp. Sig. (2- tailed) of (0.000). Because the value of Asymp. Sig. (2-tailed) of (0.000) 0.05, then Ho is rejected and Ha is accepted. So that the effectiveness of the tax audit for earning management and tax sheltering there is a significant difference.

Table 6 Output of Independent sample t

Levene's Test for Equality of Variances			t-test for Equality of Means		
Skor	F	Sig.	T	Df	Sig. (2 tailed)
Equal Variances assumed	0,22	0,023	-5,14	52	0,000
Equal Variances not assumed			-5,12	50,63	0,000

Furthermore, the Mann Whitney test is carried out, by testing the hypothesis: if Jcalc> the critical value, then Ho is accepted. If Jcalc Critical, then Ho is rejected. Based on the results of data analysis,

the Mann-Whitney U value is 127,511. Asymp Value. Sig. of 0.03 0.05, then Ho is rejected. So the average value of the posttest earnings management and tax sheltering results is significantly different.

3.2.4 Gain Test
Testing the indications of earning management and tax sheltering is effective or not in the tax audit, then a normalized gain test is carried out with the acquisition of data results. Based on the value data on earnings management before and after the understanding is given, the average difference in value or the Gain test index is 1.7. While the average score of tax sheltering is 1.8.

The N-gain test (normalized gain) uses the equation $(g) = ((\%post) - (\%pre)) / (100\% - (\%pre))$. Based on the results of this study by cal.culating the average normalized gain based on the interpretation category according to [28], the normalized gain on earning management material is 0.44, and tax sheltering is 0.49, in the medium category. It can be interpreted that the tax examiner's understanding of the earning management and tax sheltering material in the tax audit process is quite effective because it increases the normalized gain by 0.44 and 0.49, respectively.

3.2.5 Discussion
The results of this study are in line with the results of several research studies related to the efficiency of tax audits which show a higher positive audit probability between permanent differences and temporary differences in fiscal corrections. Research [29] concludes that correct valuation of financial statements results in a higher audit probability for positive book-tax differences. Empirical research has confirmed that public financial accounting information can be useful for tax auditors to conclude corporate tax aggressiveness [30]. The results of the study [31] show that the efficiency effect of additional information depends on the strength of the tax auditor's incentives and providing tax auditors access to audit report information can increase tax compliance and reduce the frequency of tax audits. This study adopts research results [31] as a benchmark for taxation conditions in Indonesia.

Technically, it is also not certain that an increase in tax compliance with accounting reports can reduce earnings management and/or Tax Sheltering, or the existence of accounting and tax differences can indicate tax reporting behaviour for taxpayers. Differences between accounting income and taxable income (Book-Tax Differences, BTD) as well as various reporting scandals by taxpayers in the context of non-compliance have sparked academic discussions about the level of conformity of Book-Tax Conformity (BTC), namely the extent to which book-tax conformity and tax accounting should be aligned.

The Taxpayer's strategy in tax avoidance through earnings management is, however, part of the focus of tax audits by using more appropriate proxies. In addition, checking the actual BTD calculated from tax reporting through estimates from the financial statements presented by taxpayers is predicted to increase the impact of the difference in tax calculations according to tax regulations. Therefore, the efforts made to determine BTD accurately by the tax examiner on the findings of the taxpayer's earnings management seem useful for the need for explanations for opportunistic reporting.

According to research results [7] taxpayers' tax compliance is shown significantly through earnings management activities, while [9] finds high tax compliance can reduce overall earnings management and minimize tax evasion. The results of another study found a significant and positive relationship between BTD and financial reporting submitted by taxpayers for tax purposes (Wilson (2009). The consensus estimate of the relationship between BTD and Tax Sheltering and BTD and Earnings Management based on research results [3] shows the level of significance in 5% threshold for Tax Sheltering and even 1% threshold for Earnings Management. This shows that BTD is indicated by Earnings Management and Tax Sheltering, and moreover Earnings Management. The third hypothesis of this study (H3) is that the effectiveness of tax audits is determined by earnings measures. management and tax sheltering carried out by the audited taxpayer.

The earnings management behaviour category [26] includes: (1) fulfillment of earnings forecasts, (2) financial statement fraud, (3) discretionary accruals. [3] revealed that earnings management aims: (1) to avoid reporting earnings declines, (2) to avoid reporting losses, and (3) to avoid failing to meet analyst

earnings forecasts. Corporate Taxpayers identified as having a high probability of having financial commitments represent an extreme case of earnings management.

4. Conclusion

The results showed that earnings management was influenced by Book Tax Difference and earnings management influenced tax sheltering. Based on the test results, the impact obtained is that the tax audit implementation process will be more effective if the tax examiner detects earnings management and tax sheltering carried out by the audited taxpayer. The implementation of the tax audit process to achieve effective tax compliance is important for tax auditors to be able to understand the practice of earning management and tax sheltering by taxpayers. The potential effect of increasing the effectiveness of this tax audit can be supported by the use of audited financial statements and financial audit information. The tax examiner in accessing the financial information of the financial auditor is intended to obtain additional information on differences in financial accounts that are suspected to lead to taxpayers' earning management and tax sheltering activities. In principle, in general, the different reporting between financial accounts and tax accounts creates differences between commercial financial statements and tax financial statements. The level of Book-Tax Differences (BTD) will in turn depend on the level of Book-Tax Differences. The lower the degree of concordance between the two reports, the higher the amount of coverage expected on Book-Tax Differences.

References

[1] Kasper, M., & Alm, J. (2022). Audits, audit effectiveness, and post-audit tax compliance. *Journal of Economic Behavior & Organization*, *195*, 87-102.

[2] Beer, S., Kasper, M., Kirchler, E., & Erard, B. (2020). Do audits deter or provoke future tax noncompliance? Evidence on self-employed taxpayers. *CESifo Economic Studies*, *66*(3), 248-264.

[3] Evers, M., Meier, I., & Finke, K. (2016). The implications of book-tax differences: A meta-analysis. *ZEW-Centre for European Economic Research Discussion Paper*, (17-003).

[4] Wilson, R. J. (2009). An examination of corporate tax shelter participants. *The accounting review*, *84*(3), 969-999.

[5] Lisowsky, P., Robinson, L., & Schmidt, A. (2013). Do publicly disclosed tax reserves tell us about privately disclosed tax shelter activity?. *Journal of Accounting Research*, *51*(3), 583-629.

[6] Lennox, C., Lisowsky, P., & Pittman, J. (2013). Tax aggressiveness and accounting fraud. *Journal of accounting research*, *51*(4), 739-778.

[7] Watrin, C., Ebert, N., and Thomsen, M. (2014). Book-Tax Conformity and Earnings Management: Insights from European One and Two-Book Systems *Journal of the American Taxation Association* pp. 55-89.

[8] Blaylock, B., Gaertner, F., Shevlin, T. (2015). The association between book-tax conformity and earnings management *Review of Accounting Studies*, pp. 141-172.

[9] Tang, T.Y.H. (2015). Does Book-Tax Conformity Deter Opportunistic Book and Tax Reporting? An International Analysis. *European Accounting Review*. pp. 441-469.

[10] Rablen, M. D. (2014). Audit probability versus effectiveness: The Beckerian approach revisited. *Journal of Public Economic Theory*, *16*(2), 322-342.

[11] Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

[12] Neuman, W. L 2014 *Social Research Methods: Qualitative and Quantitative Approaches* 7th ed. (Harlow: Pearson Education Limited).

[13] Lanis, R., & Richardson, G. (2012). Corporate social responsibility and tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy*, *31*(1), 86-108.

[14] Dunbar, A., Higgins, D. M., Phillips, J. D., & Plesko, G. A. (2010). What do measures of tax aggressiveness measure?. In *Proceedings. Annual Conference on Taxation and Minutes of the*

Annual Meeting of the National Tax Association (Vol. 103, pp. 18-26). National Tax Association.

[15] Wolk, H. I., & Tearney, M. G. (1997). Accounting theory: A conceptual and institutional approach.

[16] Baltagi, B. H 2008 *Econometrics* 4th ed. (Springer)

[17] Wooldridge, J. M 2002 *Introductory Econometrics: A Modern Approach* 2nd ed. (South-Western)

[18] Ullah, A 2004 *Finite Sample Econometrics: Advance Text in Econometrics* 1st ed. (New York: Oxford University Press)

[19] Brooks, C 2008 *Introductory Econometrics for Finance* 2nd ed. (Cambridge University Press) Jackson, M 2009 *Book Tax Differences and Earnings Growth* (Oregon: University of Oregon).

[20] Jackson, M. (2009). *Book-tax differences and earnings growth*. University of Oregon.

[21] Revsine, L., Collins, D., and Johnson, B 1999 *Financial Reporting And Analysis* (Prentice Hall, Upper Saddle River, New Jersey)

[22] Hanlon, M. (2005). The persistence and pricing of earnings, accruals, and cash flows when firms have large book- tax differences. *The accounting review*, *80*(1), 137-166.

[23] Penman, S. H., & Penman, S. H. (2010). *Financial statement analysis and security valuation*. New York: McGraw-Hill/Irwin.

[24] Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of accounting and Economics*, *50*(2-3), 127-178.

[25] Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The accounting review*, *84*(2), 467-496.

[26] Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of financial economics*, *69*(3), 505-527.

[27] Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long- run corporate tax avoidance. *The accounting review*, *83*(1), 61-82.

[28] Hake, R. R. (1999). Analysing Change/Gain Score Woodland Hills Dept. of Physics. *Indiana University*, *1*.

[29] Mills, L. F., & Sansing, R. C. (2000). Strategic tax and financial reporting decisions: Theory and evidence. *Contemporary Accounting Research*, *17*(1), 85-106.

[30] Bozanic, Z., Hoopes, J. L., Thornock, J. R., & Williams, B. M. (2017). IRS attention. *Journal of Accounting Research*, *55*(1), 79-114.

[31] Blaufus, K., Schöndube, J. R., & Wielenberg, S. (2020). Strategic interactions between tax and statutory auditors and different information regimes: implications for tax audit efficiency. *Available at SSRN 3566897*.