Factors Affecting Book-Tax Differences in Indonesian Manufacturing Industries

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Abstract

The motivation behind this investigation was to decide the effect of earning management (Ern Mgt) and tax management (Tax Mgt) on book tax differences (BTD) and audit fees (Aud Fee) to moderate the effect of Ern Mgt and Tax Mgt on BTD. Research offers secondary data in the form of annual financial reports of manufacturing entities 2015-2019 period which are recorded on the Indonesia Stock Trade, the study sample selection method used purposive sampling with model. The number of samples used was 112 in five years (2015-2019). Data processing was performed using path analysis techniques at significant rank 0.05. the uniqueness of this study a moderating variable, namely the audit fee, with the consideration that audit fees have an impact on the preparation of financial reporting. research results explain that Tax Mgt take effect on BTD. Tax Mgt provides input to companies to carry out tax planning based on tax law in order to embezzle taxes sanctions and make tax payments efficient. However, Aud Fee do not significantly strengthen the relationship between earning management Tax Mgt on BTD.

Keywords:
Book Tax differences
Tax management
Earning management
Audit fee.

JEL Classification:
H21.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.

1. Introduction

In relation to Indonesian tax revenue, income tax (PPh), income tax based on the subject is divided into two, namely individual taxpayer income tax and corporate taxpayer income tax. If broken down by state revenue, the income tax of corporate taxpayers has a very large contribution to the total state tax revenue, compared to the income tax of individual taxpayers.

The following below is the Table of Realization of Tax Revenues, Non-Tax / PNBP Revenues and Grants. From 2017, 2018 and 2019 in billions of rupiah.

<table>
<thead>
<tr>
<th>Year</th>
<th>Tax Income</th>
<th>Non-Tax Income</th>
<th>Grant</th>
<th>Total Tax Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,343,529.80</td>
<td>311,216.30</td>
<td>11,629.80</td>
<td>1,666,375.90</td>
</tr>
<tr>
<td>2018</td>
<td>1,518,789.80</td>
<td>409,320.20</td>
<td>15,564.90</td>
<td>1,928,110.00</td>
</tr>
<tr>
<td>2019</td>
<td>1,643,083.90</td>
<td>386,333.90</td>
<td>1,340.00</td>
<td>2,030,757.80</td>
</tr>
</tbody>
</table>

Source: Indonesian Central Statistics Agency.

Table 1 explains that state revenue from the tax sector is the largest share when compared to the non-tax sector, so taxes are the main source of state revenue in Indonesia.
Tax revenue in Indonesia throughout 2019 has decreased. The manufacturing and mining sectors experienced the largest decline in tax payments to the state treasury. Minister of Finance Sri Mulyani Indrawati said that the realization of tax revenue which amounted to Rp. 332.1 trillion last year only grew 1.5% on an annual basis. Tax payments for the manufacturing and mining sectors recorded negative growth. "The manufacturing and mining sectors experienced negative growth because they were directly related to commodity prices and international trade," he said at the Ministry of Finance's Office, Tuesday (7/1/2020).

Tax revenue from the mining sector experienced the deepest contraction. This sector recorded a negative growth of 19%. In fact, in 2018, the mining sector was able to record growth of up to 50.7%. The sector that suffered the heaviest hit was the mining sector, which contracted 19% last year. This is one of the causes of pressure on tax revenues. us" he explained, source https://news.ddtc.co.id.

The most recent issue in charge research is book charge contrasts. Book charge contrasts are characterized as the distinction between bookkeeping benefit and available pay (available pay), this distinction is brought about by the principles in making bookkeeping monetary reports dependent on FAS (Financial Accounting Standards) with charge fiscal summaries dependent on material duty guidelines, conditions this happens for the most part in each country. The event of book tax differences raises the chance for profit the executives and income quality to happen (Scholes, Wolfson, Erickson, Maydew, & Shevlin, 2005) the consequences of this examination express that the measure of review expenses significantly affects the honesty of fiscal reports. The purpose behind this research is first, to determine the effect of Ern Mgt and Tax Mgt on BTD. Second, Aud Fee can weaken or strengthen the effect of earnings management and tax management on commercial profit and tax profit.

2. Literature Review

Entities that are listed on the effect exchange have complex problems and require investors to finance them through their investments. Managers have a fiduciary responsibility to investors with a focus on maximizing their value. The separation of proprietorship and control prompts a possible irreconcilable circumstance among agent and investors. A contention happens when the interests of the executives are not in accordance with those of the financial backer. The board's revenue is to amplify their own utility to the detriment of financial backers, for example, the craving for significant compensations and enormous rewards. However, investors' interest is to maximize the value of their investment in the company. This has become associated with agency theory.

2.1. Agency Theory

Jensen and Meckling (1976) express the office relationship in organization hypothesis that an organization is an assortment of agreements (nexus of agreement) between the proprietor of monetary assets (head) and the chief (specialist) who deals with the utilization and control of these assets. In suppressing the risk of agency theory associated with the agency burden that occurs, agency expense is defined as the cost borne by investors to encourage managers to maximize investor wealth. Jensen and Meckling (1976) state that there are three types of agency costs, namely: (1) monitoring expenses, (2) bonding expenses, and (3) residual losses. According to Jensen and Meckling (1976), Information asymmetry comprises of two sorts, specifically. Moral risk which occurs because management does not do what has been agreed in the work agreement and adverse selection that occurs information asymmetry because the principal does not know whether the decision made by the agent is true information, a company. So that this can be related to Ern Mgt practices in the company. Tang and Firth (2012) predicts the existence of Ern Mgt in companies in China. This study has tested and analyzed earnings quality by linking to book tax differences, so it can be concluded that BTD can explain profit quality and profit quality related to Ern Mgt practices in companies.

Agency theory is a grand theory in this research, because agency theory can explain that management as an agent practices Ern Mgt. Ern Mgt behavior by agents affects the difference contrast between bookkeeping benefit and taxable profit in the company's financial statements. Thus, Ern Mgt behavior is high, it will indicate book tax differences. However, the opposite applies, if the Ern Mgt activity is small, it does not indicate BTD.

2.2. Book Tax Differences

Tang and Firth (2011) explained that accounting profit and tax profit is difference between profit before tax reported in commercial financial statements and taxable profit reported to the Tax Office. This study suspects that the size of the discretionary accruals affects the size of BTD. Book tax differences are transitory contrasts that emerge because the recognition of income and cost are not the equivalent in each rule; however, over the long term the recognized amounts will be the equivalent. Perpetual contrasts are contrasts that are not perceived by the tax rules however are perceived in the bookkeeping result (Ferreira, 2012).

2.3. Earning Management

Scott (2009), Profit The board is an administration intercession during the time spent planning monetary reports for outside parties so it can level, increment, and reduction income revealing, where the executives can
utilize the slack in the utilization of bookkeeping strategies, make arrangements (discretionary), that can quicken or postpone expenses and incomes, so the organization's benefits are more modest or more prominent true to form.

2.4. Audit Fee

In principle, review charges are controlled by review exertion and suit hazard (Choi, 2010). It has been demonstrated exactly that examiners consolidate the board uprightness into their judgment and dynamic to evaluate the innate dangers and control chances related with the review commitment (Ayers, 1998). So that the size of the audit fee that has been agreed upon by the auditor with his client will affect the quality of the resulting audit. With high audit fees, it will increase the accuracy of the auditors simultaneously of examining financial report and can expand the audit procedures used in the audit interaction of financial reporting.

2.5. Tax Management

Tax Mgt is a strategic planning process within the company, with the aim of increasing profit performance measurement. Tax management has costs such as: opportunity cost and political cost (Scholes et al., 2005; Slemrod, 1992). The practice of Tax Mgt is very influential on the BTD (Dridi, 2015).

3. Hypothesis Formulation

According to research by Anastasia (2013), it shows that high discretionary accruals will affect larger BTD, and high tax avoidance treatment is associated with higher earnings achievement for earnings management. It is found that BTD is gradually useful for accrual accounts to determine the occurrence of profit management.

Tang and Firth (2011) stated that Book-Tax Differences is a way to manipulate accounting profit and tax profit caused by entity motivation. that the higher the level of management incentives to carry out earnings management practices, the greater the difference in earnings (Ahnab & Murwaningsari, 2019). Companies that have a high BTD level are more likely to meet profit management estimates. In accordance with the arguments of Phillips, Pincus, and Rego (2003), if a large BTD is associated with a large probability of meeting management's desired earnings, they are gradually useful in knowing earnings Ern Mgt practices. So that the hypothesis becomes:

H1: Earning Management has a significant effect on BTD.

BTD will have a different meaning when the value is absolute, that is, the company seems to have a higher accounting profit than its fiscal profit. In other words, it is as if the company is indicated to have taken Tax Mgt action because its BTD value has become high. For this study, the true (not absolute) BTD value was used. Several studies state that BTD contains information on tax avoidance using Tax Mgt (Plesko, 2004). According to Anggreni (2017), tax plan behavior is manifested by large BTD differences. From this argument the hypothesis is:

H2: Tax Management has a negative effect on BTD

Hanlon, Krishnan, and Mills (2012) concluded the results of research with evidence that BTD is associated with high Aud Fee, this gives a signal that these tax accounting differences represent proxies that can be analyzed for the quality of earnings that affect the auditor's decision to examine the financial reports of the auditor's client company. So that it can be hypothesized:

H3: Audit Fee strengthens the influence of the relationship of Earning Management on BTD.

Realized large audit costs will cause auditors not to be neutral in carrying out their functions, accountants' opinion products like this weaken the practice of auditors (Eshleman & Guo, 2013). Discovered comparable proof in regards to the financial reliance of audit on customer. Realized large audit costs will cause auditors not to be neutral in carrying out their functions, the products of accountants' opinions weaken the practice of auditors (Asthana & Boone, 2012; Eshleman & Guo, 2013) found similar evidence regarding the economic dependence of auditors on clients. They found that clients who incur high Aud Fee have large accrual accounts as well, especially to meet analysts' projections, especially in terms of tax costs (Hanlon et al., 2012) in their research explained that there is a significant effect of Aud Fee with BTD. This gives rise to the hypothesis

H4: Audit Fee strengthens the relationship Tax Management and BTD.

Figure 1 explains the relationship between the variables used as the research object. Independent variables, Earning Management and Tax Management which have an influence on the dependent variable book tax differences, while the moderating variable in this figure is the audit fee which functions to strengthen the relationship between the dependent variable and the independent variable. The control variables in this study appear in the picture are size, leverage, and profitability.
4. Methodology, Sample Size and Variables

![Diagram showing methodology and variables]

**Independent Variable**
- Earning Mng
- Tax Mgt

**Dependent Variable**
- Book Tax Different (BTD)
- Audit Fee (AF)

**Control Variables:**
- Company Size (SIZE)
- Leverage (LEV)
- Profitabilitas (Pro)

**Model**

**Hypothesis 1,2**

\[ BT = \beta_0 + \beta_1 \text{Ern_Mgt} + \beta_2 \text{Tax_Mgt} + \beta_3 \text{Size} + \beta_4 \text{Lev} + \beta_5 \text{Pro} + \epsilon \]

**Hypothesis 3,4**

\[ BT = \beta_0 + \beta_1 \text{Ern_Mgt} + \beta_2 \text{Tax_Mgt} + \beta_3 \text{Ern_Mgt} \times \text{Aud_Fee} + \beta_4 \text{TM} \times \text{Aud_Fee} + \beta_5 \text{Size} + \beta_6 \text{Lev} + \beta_7 \text{Pro} + \epsilon \]

This investigation utilizes secondary information as yearly fiscal summaries of manufacturing organizations in 2015-2019, period which are listed on the Indonesia Stock Exchange. The research sample selection method uses purposive sampling with criteria: the entity uses the Indonesian Rupiah (IDR) currency, the entity has the necessary variable components, the company has not experienced a loss for 5 years, the manufacturing organization is recorded on the Indonesia Stock Exchange and publishes audited financial reports for the 31st period. December consistently and completely from 2015-2019. The number of samples used was 112 in 5 years (2015-2019). Data processing was performed using path analysis techniques at a significance level of 5% or 0.05.

5. Measurement

5.1. Book Tax Difference (BTD)

The dependent variable used in this research is BTD, BTD, which is in the form of differences in earnings based on book value and tax value, referring to research (Tang & Firth, 2012). BTD is calculated using the following formula.

\[ BTD = \frac{\text{Accounting Profit} - \text{Tax Profit}}{\text{Total Assets}} \]

5.2. Earning Management

This research uses an accrual earnings management measure using the revenues discretionary (Stubben, 2010): Measurement:

1) Revenue Model
\[ \Delta AR_{it} = \alpha + \beta_1 \Delta R_{1,3it} + \beta_2 \Delta R_{4it} + \epsilon \]

2) Conditional Revenue Model
\[ \Delta AR_{it} = \alpha + \beta_1 \Delta Rit + \beta_2 \Delta Rit \times SIZE_{it} + \beta_3 \Delta Rit \times AGE_{it} + \beta_4 \Delta Rit \times AGE_{SQit} + \beta_5 \Delta Rit \times GRM_{it} + \beta_6 \Delta Rit \times GRM_{SQit} + \epsilon \]

Note:
AR = year-end receivables, R1_3 = revenue in the first three quarters, R4 = revenue in the fourth quarter, SIZE = natural log of total assets at the end of the year, AGE = age of the company (years)
GRM = gross margin, SQ = square of the variable, e = error.

5.3. Tax Management
The tax management measure is the effective tax rate. Reasonable tax rates are used to strategize corporate tax savings systems because they provide data information on the effects of tax incentives and the development of income tax rates, Gupta and Newberry (1997). The company's effective tax rate can be measured by a formula
TM = tax expense/profit before tax

5.4. Audit Fee as Moderation Variable
The Aud Fee is determined by the auditor and his client. It is likely that the audit fee will affect the quality of the audit it produces. With high audit fees, it will increase the accuracy of auditors in checking financial statements. The research conducted by El-Gamma (2012) proves that the provision of large audit fees to independent auditors will affect the quality of the audits produced by independent auditors. Research conducted (Nuraeni & Mulyati, 2018). States that AF are closely related to earnings persistence. Audit costs in this study used measurements adopted from research (Martinez & da Jesus Moraes, 2014) and Evlin and Sistya (2018):
AF = Natural Log from AF

6. Discussion and Results

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ern_Mgt</td>
<td>112</td>
<td>-1.9778</td>
<td>0.21503</td>
<td>0.3103027</td>
<td>0.850017</td>
</tr>
<tr>
<td>Tax_Mgt</td>
<td>102</td>
<td>0.00482</td>
<td>0.54839</td>
<td>0.390788</td>
<td>0.54808576</td>
</tr>
<tr>
<td>Aud_Fee</td>
<td>112</td>
<td>20.06934</td>
<td>33.32018</td>
<td>27.4443702</td>
<td>2.85628077</td>
</tr>
<tr>
<td>Lev</td>
<td>112</td>
<td>0.10923</td>
<td>2.65455</td>
<td>0.7457072</td>
<td>0.48351997</td>
</tr>
<tr>
<td>Siz</td>
<td>112</td>
<td>0.11620</td>
<td>0.59764</td>
<td>0.0782831</td>
<td>0.10743786</td>
</tr>
<tr>
<td>Pro</td>
<td>112</td>
<td>20.34752</td>
<td>33.32018</td>
<td>28.2787078</td>
<td>1.95339401</td>
</tr>
<tr>
<td>BTD</td>
<td>112</td>
<td>0.92937</td>
<td>0.63182</td>
<td>0.0155578</td>
<td>0.18435841</td>
</tr>
</tbody>
</table>

Valid N (listwise) 102

Note: Ern_Mgt=Earning Management, Tax_Mgt=Tax Management, Aud_Fee=Audit Fee, Lev=Leverage, Siz=Size, Pro=Profitabilitas, BTD= Book Tax Differences

Based on Table 2 the minimize EM value is -1.9778 and the mean EM value is 0.3103017 and the standard deviation value is 0.850017 which indicates that the standard deviation is greater than the average, which means that the variation of EM is heterogeneous, i.e. the average cannot be used to describe the overall data. In the Leverage variable, the minimize value is 0.00482 and the mean value is 0.7457072 and the standard deviation value is 0.54808576, this shows that if the standard deviation is smaller than the average, it shows that the average Homogeneous Leverage variation can be used to explain the data as a whole.

Table 3: Regression Result

<table>
<thead>
<tr>
<th>Dependent V</th>
<th>Independent V</th>
<th>Prog Sign</th>
<th>Coef</th>
<th>T Stat</th>
<th>Sig</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Tax Differences</td>
<td>Cons</td>
<td>+</td>
<td>-0.088</td>
<td>0.297</td>
<td>0.383</td>
<td>-</td>
</tr>
<tr>
<td>Ern_Mgt</td>
<td>+</td>
<td>-2.854</td>
<td>-0.013</td>
<td>0.495</td>
<td>H1 Rejected</td>
<td></td>
</tr>
<tr>
<td>Tax_Mgt</td>
<td>-</td>
<td>-0.02</td>
<td>0.566</td>
<td>-0.013*</td>
<td>H2 Received</td>
<td></td>
</tr>
<tr>
<td>Ern_Mgt*AF</td>
<td>+</td>
<td>0.942</td>
<td>0.058</td>
<td>0.477</td>
<td>H3 Rejected</td>
<td></td>
</tr>
<tr>
<td>Tax_Mgt*AF</td>
<td>+</td>
<td>-0.001</td>
<td>-0.496</td>
<td>0.310</td>
<td>H4 Rejected</td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>+</td>
<td>0.079</td>
<td>1.912</td>
<td>0.019*</td>
<td>H5 Received</td>
<td></td>
</tr>
<tr>
<td>Siz</td>
<td>+</td>
<td>0.191</td>
<td>0.453</td>
<td>0.018*</td>
<td>H6 Received</td>
<td></td>
</tr>
<tr>
<td>Pro</td>
<td>+</td>
<td>0.001</td>
<td>0.595</td>
<td>0.027*</td>
<td>H7 Received</td>
<td></td>
</tr>
<tr>
<td>F Statistics</td>
<td>0.03*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Adj R Square</td>
<td>0.307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Stand Error</td>
<td>0.5123</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Note: BT = β0 + β1Ern_M + β2Tax_Mgt + β3Ern_M*AF + β4Tax_Mgt*AF + β5Size + β6Lev + β7Pro + ε
Based on the results that can be seen from Table 3, the F statistic is 0.08 which is smaller than 0.05, meaning that the significance level is 0.03 <0.05. Because the level of significance <0.05, the F test with the model This research is accepted, which implies that the independent variable at the same time impacts the dependent variable.

In light of Table 3 which expresses that the Adj R Square is 0.307. This implies that 30.7% of the factors from the BT D can be clarified by the Tax Mgt variable and the Ern Mgt variable contained in this examination. While the rest (100% -30.7%), namely 69.3%, is explained and impacted by different factors not in the study. The estimation of R Square is the in the endogenous develop. As indicated by Chin (1998) the R square qualities are 0.6(solid), 0.3 (moderate) and 0.19 (frail).

The variable that has a large negative effect is Tax Mgt on the BTD variable which is 1.3 percent, which means that each increase in Tax Mgt will have an effect on reducing 1.3 percent of BTD. As for the control variable, leverage increases 1.9 percent, followed by an increase in tax book differences by 1.9 percent. If the control variable Size increases by 1.8 percent, it will be followed by an increase in tax book differences by 1.8 percent. Then the control variable increases the profitability of 2.7 percent, then an increase in BTD of 2.7 percent will be followed.

6.1. The Effect of Earning Management on Book Tax Differences

Regression analysis on earnings Ern Mgt effect on BTD. The significance point of the regression result 0.495, which is greater than the worth of 0.05, so it can be interpreted that the independent variable of Ern Mgt has no significant effect on BTD. So it can be concluded that the difference accounting gain and taxable gain the financial report is not due to profit management practices. The consequences of this examination have contrasts with the aftereffects of Sari and Purwaningsih (2014). Study of the company's management in determining the amount of accounting profit by taking advantage of loopholes in financial accounting standards. This is indicated by the factors that cause deferred tax expenses as a result of BTD. When viewed from the perspective of the main goal of earnings management is to improve manager performance by choosing accounting methods and playing discretionary accruals in order to generate the desired profit for the benefit of managers (bonuses and performance appraisals). So if viewed from the point of view of the main objective of Ern Mgt, it makes sense that tax management has no significant effect on BTD.

6.2. The Effect Tax Management on Book Tax Differences

The regression analysis explains the tax management with a significance value of - 0.013 which is less than 0.05, thus explaining that taxes management has a significant influence on the BT D. The tax management used by the company is effective. Because Tax Mgt provides input to companies to carry out tax planning in accordance with tax regulations in order to avoid tax sanctions and make tax payments efficient by using tax avoidance. So that tax planning can lead to lowering the company's tax burden without violating applicable tax regulations. The aftereffects of this examination uphold the exploration directed by Mangunsong (2002). The better the tax planning, the less BTD will occur in an entity.

6.3. Audit Fee Strengthens the Influence of Earning Management Relationship to Book-Tax Differences

Regression results on Aud Fee Moderation affect the connection between profit management and BTD with a value of 0.477, the result is more than 0.05, so it can be interpreted that Aud Fee does not strengthen the relationship between Ern Mgt and BTD. This seems different from the results of research conducted by Hanlon (2002) which explains that higher audit costs lead to higher BTD, audit fees can moderate the relationship between earning management and BTD. High audit cost do not have a major effect on Ern Mgt practices, and large Aud Fee do not have an impact on BTD.

Usually effective Aud Fee are used to measure audit quality, the results of previous research explain that audit fees have a major effect on quality audit reports (Wiguna, Yasa, & Suardani, 2019). Aud Fee with audit results from previous studies explain that high Aud Fee affect audit reporting decisions (Trainor, 2009).

6.4. Audit Fee Strengthens the Influence of Tax Management Relationship to Book-Tax Differences

The results of the regression analysis state that Audit Costs result in moderating between Tax Mgt and BTD, the result is 0.310 which exceeds 0.05, which means that Aud Fee cannot strengthen the relationship between Ern Mgt and BTD. Results of this study seem to be inversely related to the results of research Martinez and da Jesus Moraes (2014) and Maharani (2014), research explains the influence between tax avoidance and audit costs. the result is that entities that have a high level of tax avoidance will also be cost to large external auditors. Currently, external auditors can carry out a higher complexity, which is believed to be able to help companies carry out tax planning. The results of Martinez and Maharani's research make sense because a high audit fee will have capable auditors who have extensive audit and financial knowledge as well as good tax knowledge.
7. Conclusion

The findings in the research explain that Tax Mgt has a positive effect on BTD. Because Tax Mgt provides input to companies to do tax planning in accordance with tax regulations in order to avoid tax sanctions and make tax payments efficient, as well as leverage, company size, profitability affects book tax differences.

The implication of this research is expected to be useful for tax accountants, as an evaluation tool to determine the condition of a client as best as possible, a good client assessment will make it easier for tax accountants to prepare financial reports for taxation to minimize the risk of tax penalties.

The limitation of this study is the limitation of the sample that only uses public companies in the manufacturing sector, so that it may have an impact on the generalizability of the research results.

Suggestions for further research, because Indonesia is included in a Development Country, this research will continue to develop so that further researchers can make research with a sample of other industries besides manufacturing.

References


