

Detection of Tax Avoidance Due to the COVID-19 Pandemic with the Tax Aggressiveness Model

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Abstract. Tax aggressiveness is an action designed to reduce taxable income. Avoidance is done through tax planning. This study aims to analyze indications of tax avoidance with the tax aggressiveness model. Measurements are made by proxy for the abnormal book-tax difference. The way to measure it is by connecting the investment value, changes in income, fiscal, and commercial losses. The manufacturing sector is an important sector for economic recovery. The Ministry of Industry is focused on improving the performance of the five manufacturing sectors to enter the industrial era 4.0. This sector is the pillar of future national economic growth. The five sectors include the food and beverage, textile and clothing, chemical, automotive, and electronics industries. The results of the research are expected to become a reference for policies on economic recovery after the Covid-19 pandemic, especially regarding tax policies.

Keywords: tax aggressiveness, manufacturing, book tax difference, economic policy, covid19.

1. INTRODUCTION

One of the factors considered to be the main cause of always not achieving tax receipts is the continued tax avoidance activity [1]. A fundamental problem in the tax sector that still cannot be resolved is the loophole of tax avoidance measures. Actions in tax aggressiveness include part of tax avoidance and tax evasion [2]. Tax aggressiveness occurs because the tax burden reduces the company's profits so it becomes one of the deciding factors in decision making by management [3]. Management's behavior of manipulating profits through tax planning aims to get them high returns.

In measuring acts of aggressiveness taxation is used several proxies or measurements. Hanlon & Heitzman [4] in his research found that twelve proxies can be used to measure corporate tax aggressiveness. Each proxy has its advantages and disadvantages. Some of the proxies commonly used by researchers are effective tax rate (ETR), which is divided into GAAP effective tax rate,

Current effective tax rate, and Cash effective tax rate [5, 6] research state that the basic form of ETR calculation is referred to as GAAP ETR, as disclosed in its publication's financial report. Research from Richardson & Lanis [7] also used similar proxies. ETR's use of GAAP does not measure deferred tax strategies. To overcome the limitations of GAAP ETR [5] made variations by measuring the tax deferral strategy because the current tax burden reduction will not be compensated by the increase in deferred tax expense.

Another version of ETR is Cash ETR[8, 6]. This variation uses cash paid for tax as a numerator in its calculations. Another version of the measurement to find out the aggressiveness in taxation is to use the tax difference book. Book tax difference (BTD), is the difference between pre-tax profit reported in published financial statements (accounting profit) and taxable profit (fiscal profit) [9]. The continued development of BTD is Abnormal BTD, the residual value of the total regression of book-tax differences with changes in investments in

the form of fixed assets and intangible assets, changes in income, changes in net operating losses that can be compensated by the company, and the value of corporate tax loss compensation [10]. The greater the abnormal value of BTM indicates the higher the level of tax aggressiveness and describes tax avoidance as increasingly intense. This research uses abnormal BTM measurement methods because these proxies are still rarely used in Indonesia.

Of the many industrial sectors listed on the Indonesia Stock Exchange, the manufacturing sector is the most numerous. Measurements using Abnormal BTM found results that this sector is the sector with the highest level of aggressiveness. This sector is also the most instrumental in the economic recovery, especially after the Covid-19 pandemic that hit in 2020. The manufacturing sector itself is further divided into 18 industrial sub-sectors. Each sub-sector in the industry has different characteristics from each other. The variation in characteristics of each of these sub-sectors is indicated to also have a considerable role in causing tax aggressiveness. The problem formulation of this study is whether the differences in sub-sectors of the manufacturing industry affect tax aggressiveness? The purpose of this research is to test and analyze and prove the influence of sub-sectors of the manufacturing industry on tax aggressiveness. The study used a sample of manufacturing companies listed on IDX for the period 2014-2019. The benefit that can be obtained is that the results of this study can be used as a reference in policy-making for economic recovery after the Covid-19 pandemic, especially concerning tax regulation.

2. THEORY AND HYPOTHESIS DEVELOPMENT

2.1. Agency Theory

The application of agency theory can be realized in a contract of employment that will regulate the proportion of rights and obligations of each party while taking into account the overall benefits. Employment contracts are a set of rules governing profit-share mechanisms, whether in the form of profits, returns, or risks approved by principals and agents. Inti of the agency theory is the design of the right contractor to align the interests of principals and agents in the event of a conflict of interest [11]. The absence of these different interests encourages action by management to be more aggressive in taking action related to taxation. This leads to the agency's theory of aggressiveness.

2.2. Tax Aggressiveness and Tax Avoidance

Frank et al [2] define aggressive tax action as a management action aimed at lowering taxable profit through tax planning either using a tax evasion method or not. Tax avoidance is an effort to avoid or save taxes that are still within the framework of meeting the

provisions of the law. Based on the above thinking there is a gray area between tax avoidance and tax evasion that has the potential for tax aggressiveness. Aggressive transactions and decision-making may potentially be a problem of tax avoidance as well as tax evasion. The tax paid by the company is the process of transferring wealth from the company to the government so that the tax burden paid becomes very large for the company. Companies will tend to make evasive efforts and or tax savings in an effort to be able to pay taxes as efficiently as possible. Profit-oriented companies will try to minimize the tax burden by exploiting the weaknesses of a country's tax provision system.

2.3. Hypothesis Development

Economic conditions in Indonesia tend to be volatile. Economic growth was around 5% until before the Covid-19 pandemic that caused Indonesia to enter into an economic recession. This will automatically affect people's declining consumption, and manufacturers will also reduce their production. Reduced consumption leads to a decrease in revenue earned by companies, especially manufacturing. But in general, there are still sub-sectors of manufacturing companies, especially those producing primary necessities and medical also chemical that continue to produce regardless of the state of Indonesia's economy during this pandemic. This difference in characteristics creates a loophole that can be used to reduce taxes that are a liability to the state. Based on this, the research hypothesis is formulated as follows.

Ha: Sub-industrial sector manufacturing company affects tax aggressiveness behavior.

3. RESEARCH METHODS

3.1. Sample selection and data collection

The sample in this study is a manufacturing sector company listed on the Indonesia Stock Exchange in 2014-2019. The sample is defined by purposive sampling provided the listed company has listed no more than 2014 regularly publishes financial statements, has a financial reporting period that ends on December 31 each year, and the required data is complete. Data collected from the company's annual report. Out of 132 companies obtained a sample of 89 companies. Of the 89 companies, the sample used 534 processed data.

3.2. Formulation of Abnormal BTM models

Referring to Tang & Firth research [10] Abnormal BTM measurement accumulation of investment changes in the fixed assets and intangible assets, changes in income, changes in net operating loss that can be compensated by the company, and the value of corporate tax compensation scaled to the total assets. All of these components are regressed against the book tax difference value so that residual values are obtained. Residual is the difference between predicted value and actual

observation value. The large residual value represents the difference between the components in the regression, namely changes in income, changes in investment, fiscal losses and also operating losses when compared to the book tax difference. This can happen because the value of the book tax difference itself is greater than the accumulation of observation components. On the basis of this, it can be concluded that large residual values indicate more aggressive taxation activities. This research used discretionary approach that is considered to accommodate the components that are widely used by corporate companies in carrying out tax actions that are aggressive in the equation. This can make this measurement more comprehensive. The higher the value of Abnormal BTM reflects the taxation plan taken by the company is more aggressive. The formulation is as follows:

$$BTD_{it} = a_0 + a_1 \Delta INV_{it} + a_2 \Delta REV_{it} + a_3 NOL_{it} + a_4 TLU_{it} + e_{it}$$

With the description: BTD_{it} : Book-tax difference for a company i in year t , scaled with total asset year t ; ΔINV_{it} = Change in investment intangible fixed assets (gross PPE) and intangible assets from year $t-1$ to year t in a company i ; ΔREV_{it} : change in company's revenue i in t year; NOL_{it} = Changes in the net operating loss that can be compensated for the company i in t year; TLU_{it} = Value of corporate tax loss compensation i year t ; e_{it} = Abnormal BTM / Tax aggressiveness for a company i in t year.

3.3. Processing data and hypothesis testing

Data and hypothesis testing in research using Kruskal Wallis different test methods. This method is used in the distribution of research data is not distributed normally. The retrieval of hypothetical results is seen by comparing the value of significance (Asymp.Sig). in this study used three levels of significance namely 0.1; 0.05; 0.01. If the value of Asymp.Sig < level of significance, then H_a (alternative hypothetic) is accepted.

4. ANALYSIS AND DISCUSSION RESULTS

Table 1. Average Tax Aggressiveness Value with Its Components and Kruskal Wallis Test results

Industrial sub-sectors	N	TAX_AGR	BTD	Inv	Rev	NOL	TLU
Cement	18	0,165	0,017	0,182	0,053	-	0,023
Ceramics, Porcelain, Glass	36	-0,519	0,003	0,116	0,236	0,119	0,071
Metals and the like	78	-0,090	0,004	0,089	0,137	0,056	0,075
Chemistry and the like	30	0,090	0,008	0,132	0,149	-	0,003
Plastics and Packaging	18	-0,114	0,003	0,060	0,043	0,048	0,018
Feed	24	-0,196	0,007	0,118	0,120	0,053	0,105
Wood Processing	6	-0,113	0,003	0,075	0,078	0,025	0,045
Pulp and Paper	36	0,154	0,027	0,055	0,087	0,035	0,086
Automotive Components	60	0,453	0,044	0,169	0,066	0,028	0,016
Textiles and Garments	66	-0,145	0,008	0,035	0,057	0,055	0,071
Footwear	6	0,340	0,057	0,172	0,005	-	-
Cable	6	0,002	-	0,148	0,147	-	-
Food and Drink	54	-0,067	0,009	0,119	0,094	0,524	0,176
Smoking rooms	18	0,055	0,001	0,101	0,061	-	0,003
Pharmaceutical	36	-0,015	0,004	0,136	0,071	-	0,010
Cosmetic	30	0,171	0,009	0,082	0,061	0,090	0,110
Household	6	0,020	-	0,020	0,040	0,063	0,063
Electronic Components	6	0,015	0,005	0,087	0,593	0,050	0,010
Total	53	-0,000	0,013	0,104	0,103	0,081	0,064
	4						
Kruskal Wallis Test		0,094	0,075	0,000	0,004	0,420	0,001
		**)	**)	*)	*)		*)

Description: *) sig 0.01; **) sig 0.10

Based on the results of table 1 shown that the significance value of tax aggressiveness is $0.094 < 0.1$ so that H_a is acceptable, meaning the sub-industrial sector of manufacturing companies affects the behavior of tax

aggressiveness. From the above results, it is also noticeable that the sub-sector differences of manufacturing companies affect every component used in

tax aggressiveness except for changes in net operating loss. To find out more in the component of influential tax

aggressiveness can be found in the rank table below :

Table 2. Rank the Influence of Tax Aggressiveness and Its Components in Every Sub-Sector

Components	Industry	Rank
Tax Aggressiveness	Cement	314,94
BTD	Cement	342,42
Inv	Pharmaceutical	381,44
Rev	Feed	352,92
NOL	Household	76,17
TLU	Feed	120,75

Based on table 2, it is known that BTD has the strongest influence from the cement sub-sector, INV gets the strongest influence from the pharmaceutical sub-sector, REV and TLU has the strongest influence from the animal feed sub-sector, and NOL gets the strongest influence from the household industrial sector.

From the results obtained can be concluded the difference in the characteristics of the company can be used by management to utilize components that can be utilized in carrying out aggressive taxation measures. Each component for measuring tax aggressiveness with abnormal BTD can be an indication of the amount of tax aggressiveness. The agency's theory would spur agents to increase the company's profits. When the income earned grows, then the amount of income tax will increase following the increase in the company's profit. This causes the company to tax avoidance to avoid increasing the amount of the tax burden. On this basis, the measurement component in the form of REV can be influential [12, 13, 14, 15]. The utilization of tax deductions can be done by companies that choose investments in the form of assets or capital in terms of depreciation. Companies that invest in fixed assets can make depreciation costs deductible and can ultimately reduce the amount of tax the company has to pay. On this basis, INV components can affect [16, 17, 18, 19]. Based on Law No. 36 of 2008 Article 6 paragraph 2 on income tax, that a company that has lost a single accounting period is granted waivers to pay its taxes by acknowledging compensation for losses. This can be used as tax avoidance because companies that get compensation losses will be spared a high tax burden. Based on this causes the TLU component to affect [20, 21].

5. CONCLUSION

One of the affected sectors of this pandemic is the manufacturing sector. In September 2020 the manufacturing index decreased from 50.8 in August 2020 to 47.2 in September 2020 [22]. This is due to the re-application of Large-Scale Social Restrictions (PSBB) as a consequence of covid-19 cases that are still out of

control, resulting in decreased production activities, plus people's consumption is also declining. As the main sector that is expected to recover Indonesia's economy after the Covid-19 pandemic, there needs to be an incentive scheme related to further taxation than has been implemented that is the incentive related to income tax article 21, 22 Import, and article 25 [23]. This advanced tax incentive is useful to keep taxpayers running their tax obligations properly without having to take tax avoidance, measures that will later have implications on the decline of state revenues after this pandemic. In addition to tax incentives, the government is also expected to be able to increase more scrutiny related to loopholes to conduct tax avoidance. Seeing from this study that before the Covid-19 pandemic the level of tax aggressiveness in manufacturing companies was quite high. Differences in characteristics between sub-sector turned out to affect the level of aggressiveness of taxation. Therefore, the government in arranging a policy should also pay attention to certain sub-sectors that have a great opportunity to conduct tax avoidance for its policies to be targeted.

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