Solid State Technology
Volume: 63 Issue: 4
Publication Year: 2020

Effects of Capital Intensity, Thin Capitalization and Family Ownership on Tax Avoidance (In Manufacturing Companies Listed on the Indonesian Stock Exchange 2013-2017)

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Abstract

This study aims to analyze the effects of capital intensity, thin capitalization and family ownership on tax avoidance. The unit of analysis is manufacturing companies listed on the Indonesia Stock Exchange for the period of 2013-2017, with a total of 235 samples through sampling techniques. There are two ways in analyzing data, namely quantitative and qualitative. Firstly, quantitative analysis consists of two methods, namely regression and correlation with the SPSS v.21 Software program. Secondly, qualitative analysis, based on theory and rationality, is used to complement quantitative analysis results. The results indicate that Tax Avoidance is partially influenced by Capital Intensity (2.54%), Thin Capitalization (3.37%) and by Family Ownership (13.11%).

Keywords: *Capital Intensity, Thin Capitalization, Family Ownership, Tax Avoidance.*

INTRODUCTION

Efforts made by companies to minimize tax expenses is with tax planning. Tax planning that utilizes the weaknesses of tax regulations will lead to tax avoidance or extremely aggressive tax planning which results in a direction that deliberately violates tax regulations to avoid taxes which therefore leads to tax evasion.

Tax avoidance is felt as something useful, especially for companies, but is a contradiction to the purpose of establishing tax regulations, so that tax

avoidance presents a risk for those who commit it.
Research conducted by Chen, Chen, Cheng, & Shevlin, (2010a) shows that the tax aggressiveness level of family companies is smaller than non- family companies, with the assumption that family owners are more willing to pay higher taxes than having to pay tax fines and face the possibility of damage to the company's reputation due to an audit of the tax authorities. Meanwhile, research by Sirait & Martani, (2014) managed to prove that family ownership in Indonesia has a positive and significant effect on aggressive tax avoidance, whereas in Malaysia is the opposite. Research conducted by Chen, Chen, Cheng, & Shevlin, (2010b) on the S&P 1500 index in the United States resulted in that companies with family ownership have no tax aggressive effect.
Fernández-Rodríguez & Martínez-Arias, (2012) stated that the company's fixed assets allow the company to cut taxes due to annual depreciation of fixed assets. The higher the capital intensity, it is thus indication of increased sales of the use of assets. Hence, when a company decides to invest in the form of fixed assets, the depreciation costs or depreciation as costs appears which could be deducted from income or deductible expenses. It would be an indicative of the company committing tax avoidance (Saudi, 2018).
Since 1985, the government has officially applied the provisions on limiting the ratio of debt to equity (DER) four to one (4: 1), which is laxer than the previous benchmark of three to one (3:1). This policy is stipulated in the Regulation of the Minister of Finance number 169 / PMK.010 / 2015 regarding the determination of corporate taxpayer’s debt and equity ratio for income tax calculation purposes.
In article 1 paragraph (1) of the Regulation of the Minister of Finance it is stated for income tax calculation purposes, a debt and equity ratio are determined for the corporate taxpayer established or domiciled in Indonesia whose capital consists of shares.
Covert equity participation by declaring such equity participation as debt, causes the amount of the loan to be considered unreasonable which results in an unreasonable interest charge in the fiscal income statement. One method of tax avoidance is by utilizing a tax shield (tax incentives) through interest expenses which can become tax deductible income.
Modigliani & Miller, (1963) suggested that companies can improve their debt structure to take advantage of tax incentives. If there is no tax, agency costs, bankruptcy costs, information asymmetry in the world, then the determination of the debt-equity capital structure will not affect the value of the company. In some countries limiting capital structure by limiting the interest-bearing debt or termed Thinly Capitalization. Taylor & Richardson, (2012) examined Thinly Capitalization as one of the independent variables in the international tax avoidance mechanism which states that companies with

large debt structures tend to commit tax avoidance.

This study has three main objectives, there are (1) Capital intensity on tax avoidance, (2) Thin capitalization on tax avoidance, and (3) Family ownership on tax avoidance.

LITERATURE REVIEW

According to Jensen & Meckling (1976) agency theory is a theory that explains the relationship between principal and agent. Based on agency theory, tax avoidance activities can occur due to agency conflict caused by differences in the information held between the two parties (information asymmetry).

Research conducted by Fan & Wong (2002) found that 7 Asian countries including Indonesia have agency conflicts between controlling shareholders and outside investors (non-controlling shareholders) which negatively affects the relevance of the value of accounting information. This shows the low quality of accounting information of public companies in Indonesia which will have an impact on the interests of users of the accounting information.

According to Sari (2017), the issue of tax payable is an issue of the tax collection system adopted by the State in concern pertaining to "who" determines the tax, which can be conducted by the taxpayer himself, known as self-assessment or carried out by a tax authority, known as an official assessment.

Pohan (2018) stated that a human being's natural instinct from the beginning until the end of time will consistently try to avoid the tax expenses in various forms and manifestations. This is due to taxes being levies based on the proper implementation of tax legislation and not voluntary contributions (taxes are enforced extractions and not voluntary contributions) and without direct compensation from the government.

Capital Intensity

Stickney & McGee (1982) defined capital intensity "are those relating to investment credit and accelerated depreciation. The larger the investment in depreciable assets, the larger should the tax savings be from these provisions and the lower should be the effective tax rate."

Zmijewski & Hagerman (1981) examines the factors that influence tax avoidance. The study was conducted in the U.S. which was the effect of tax reform by taking independent variables in the form of company size, working capital structure and asset mix. As a result, tax avoidance is influenced by capital structure, performance, and asset mix. These influences occurred before and after-tax reform. Moreover, Noor et al., (2010) declares that companies with low ETR are proven to use more debt, invest more in fixed assets, and have a low investment in inventories or in other words companies that have high inventory intensity, has a high ETR too. According to Stickney

& McGee, (1982) "The larger the investment in depreciable assets, the larger should the tax savings be from these provisions and the lower should be the effective tax rate." The ratio of capital intensity according to Stickney & McGee (1982):

$$\frac{Total\ Fixed\ Asset}{Total\ Asset}$$

Thin Capitalization

Thin capitalization occurs because tax rules allow deducting interest costs as an element of tax, whereas dividends are not a deductible expense. With the issuance of PMK Number 169 / PMK.010 / 2015 on September 9, 2015, which came into force in 2016, the Government of Indonesia emphasized the comparison ratio between debt and capital for income tax purposes. The researcher will examine at the taxpayer's response to tax avoidance from debt and capital comparisons before and after the enactment of PMK number 169-2015.

Research conducted by Khomsatun & Martani, (2015) on the Indonesian Sharia Stock Index, is that thin capitalization has a positive effect on tax avoidance. This research is the same as Gupta & Newberry, (2018) which proved that the level of corporate leverage has a positive effect on tax avoidance.

According to Taylor & Richardson, (2012) thin capitalization "apply to firms whose assets are funded by a high level of debt and a relatively low level of equity in their capital structure. The thin capitalization rules document the process by which firms can calculate the maximum amount of interest-bearing debt that can give rise to interest deductions in a year of income, known as the maximum allowable debt." Debt to equity ratio:

$$\frac{Total\ Liability}{Equity}$$

Family Ownership

Family companies are companies where the founding family members continue to hold the top management positions on the board or block holder of the company (Chen et al., 2010b). The opinion of Fama & Jensen, (2008) is that companies with family ownership are more efficient than publicly owned companies because their monitoring costs are smaller.

Research conducted by Sirait & Martani, (2014) on manufacturing companies in Indonesia and Malaysia produced findings declaring that family companies in Malaysia do not have influence on tax avoidance while family companies in Indonesia have influence on tax avoidance. Whereas the research conducted by Chen et al., (2010b) in S&P 1500 Index US produced findings which states that family businesses do not have influence on tax avoidance compared to non-family companies.

In research conducted by Siregar & Utama, (2008), to be able to influence corporate decision making and manage the flow of the company's journey, families must sufficiently have strong control. The family is considered able to control the flow of the company if it has more than 50% ownership of the company because at that point the family is definitely the majority shareholder and holds the strongest control over the company.

This study uses the method of Arifin, (2003), it is analyzed using the dummy method namely if the indicator variable meets the criteria as a family company is given a value of 1 (one) and for others given a value of 0 (zero). The study categorizes family companies with the criteria of listed ownership (ownership of 5% and above must be listed) whose proportion is more than 50% and if otherwise, would be categorized as a non-family company.

Tax Avoidance

The OECD fiscal affairs committee declares that the characteristics of tax avoidance only cover three things, namely:

1. There is an element of artificial arrangement, where various arrangements appear to be contained within, but they are not, and this is done due to the absence of tax factors.
2. Often making use of loopholes of the law or applicable legal provisions for various purposes, even though that is not the actual intention of the legislator.
3. There is an element of confidentiality. Usually, a consultant appointed by the company to handle the company's taxes reveals how avoiding taxation is conducted on the condition that the taxpayer must maintain strict confidentiality.

This study is measured using ETR which is one of the measurements of tax avoidance. Following is the ETR formula:

$$ETR = \frac{Tax\ Expense\ i,t}{Pretax\ Income\ i,t}$$

ETR aims to observe the tax expenses paid in the current year. A high ETR shows a low level of corporate tax avoidance, and contrariwise a low ETR shows an indication of corporate tax avoidance. So the more the ETR is close to zero (0), the lower the corporate tax expense, this indicates the existence of tax avoidance on the company using tax planning that utilizes the tax gap or utilizes tax rules that can minimize the company's tax expenses.

RESEARCH METHODOLOGY

Population and Sample

The population is the financial statements of manufacturing companies in the automotive and consumer goods sectors listed on the Indonesia Stock Exchange (BEI) in 2013-2017 in relation to influencing factors such as Capital Intensity, Thin Capitalization and Family Ownership on tax avoidance.
To simplify research from existing populations, sampling is applied using a purposive sampling technique. The criteria used for the samples are:

1. The company has been listed on the Indonesia Stock Exchange during the study period from 2013 to 2017.
2. The company is a family company with registered family ownership structure criteria (ownership of 5% and above must be listed) then family ownership whose proportion is more than 50% will be categorized as a family company and if not, it will be categorized as a non-family company.
3. Have complete financial statement data.
4. Financial statements do not use foreign currencies.

Based on the sample selection criteria, the total population of 120 manufacturing companies in the automotive and consumer goods sectors are listed on the Indonesia Stock Exchange.
The research uses 4 types of research variables, namely the independent variable (Capital Intensity, Thin Capitalization and Family Ownership) and the dependent variable (Tax Avoidance).

Data analysis method

This study uses secondary data types that are quantitative. Secondary data is generally in the form of evidence, records, historical reports that have been organized in published and unpublished archives. The analysis process is then performed with the IBM Statistics 21 SPSS Software and the interpretation of the data is in accordance to the research objectives.

RESULTS AND DISCUSSION

The regression equation model used to estimate how much the change in tax avoidance is caused by changes in independent variables, namely capital intensity, thin capitalization, and family ownership. Estimation of the equation of the multiple linear regression model using IBM SPSS Statistics 21 software resulted in the following output:

Table 1. Results of Multiple Linear Regression
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,234	,049		-4,742	,000
	Capital Intensity	,032	,013	,124	2,542	,012
	Thin_Capitalization	,001	,000	,164	3,376	,001
	Family Ownership	,187	,014	,641	13,110	,000

a. Dependent Variable: tax avoidance

A constant value of -0.234 percent indicates if the Capital Intensity (X1), Thin capitalization (X2) and Family Ownership (X3) variable are zero (0), then the tax avoidance (Y) variable will increase by -0.234 percent. Capital Intensity (X1) has a positive marked coefficient of 0.032 percent, indicating that any increase in capital intensity of 1 percent is predicted to increase tax avoidance by 0.032 percent.
Thin Capitalization (X2) has a positive marked coefficient of 0.001 percent, indicating that any increase in thin capitalization of 1 percent is predicted to increase tax avoidance by 0.001 percent.
Family Ownership (X3) has a positive sign coefficient of 0.187 percent, indicating that each family ownership of 1 percent is predicted to increase tax avoidance by 0.187 percent.

Effect of Capital Intensity on Tax Avoidance
The first hypothesis to be tested is the effect of Capital Intensity on tax avoidance. To test whether capital intensity influences tax avoidance, a significance test is performed using the following statistical hypotheses:
H0: $\beta 1 = 0$: Capital intensity does not affect tax avoidance. Ha: $\beta 1 \neq 0$: Capital intensity affects tax avoidance.

Table 2. Effect of Capital Intensity on Tax Avoidance

Standardized Coefficient	tcount	Sig.	ttable (db:44)	Ho
0,037	2,542	0,012	1,684	Rejected

The result obtained from the comparison of t_{count} with t_{table} is t_{count} is positive to t_{table} (2.542>1.684), so that at the level of error of 5% it was decided to reject Ho. Thus, it can be concluded that capital intensity partially influences tax avoidance. This is consistent with previous researches related to the capital intensity that affects tax avoidance conducted by Khomsatun & Martani, (2015); (Gupta & Newberry, 2018); and (Chen et al., 2010a).

Effect of Thin Capitalization on Tax Avoidance

The second hypothesis to be tested is the effect of thin capitalization on tax avoidance. To test whether thin capitalization measured by the debt- equity ratio (DER) affects tax avoidance, a significance test is carried out with the following statistical hypotheses:

H0: $\beta 2 = 0$: thin capitalization does not affect tax avoidance. Ha: $\beta 2 \neq 0$: thin capitalization affects tax avoidance.

Table 3. Effect of Thin Capitalization on Tax Avoidance

Standardized Coefficient	tcount	Sig.	ttable (db:44)	Ho
0,026	3,376	0,001	1,684	Rejected

The result obtained from the comparison of $t_{coun}t$ with t_{table} is $t_{coun}t$ is positive to t_{table} (3.376> 1.684) so that at a level of error of 5% it was decided to reject Ho. Thus, it can be concluded that thin capitalization partially influences tax avoidance. This is consistent with previous researches related to thin capitalization conducted by Stickney & McGee, (1982); Gupta & Newberry, (2018); and Khomsatun & Martani, (2015) whose results mention that debt structure to capital (debt-equity ratio) influences tax avoidance. The funding decision is especially important, capital structure is a balance between debt and capital owned by the company.

The impact of a company's decision to obtain funding with debt has an impact on company finances, but funding with debt can minimize the tax expense by charging interest charges with the 4: 1 debt comparison guidelines. This is in accordance to the Regulation of the Minister of Finance number 169 / PMK.010 / 2015 regarding the determination of the amount of the ratio between debt and capital of the company for income tax calculation purposes.

Effect of Family Ownership on Tax Avoidance

The third hypothesis to be tested is the effect of family ownership on tax avoidance. To test whether family ownership influences tax avoidance, a significance test is performed using the following statistical hypotheses:

H0: $\beta 3 = 0$: family ownership does not affect tax avoidance. Ha: $\beta 3 \neq 0$: family ownership influences tax avoidance.

Table 4. Effect of Family Ownership on Tax Avoidance

Standardized Coefficient	tcount	Sig.	Ttable (db:44)	Ho
0,986	13,110	0,000	1,684	Rejected

The results obtained from the comparison of t_{count}t with t_{table} is t_{coun}t is positive to t_{table} (13,110> 1,684), so that at a level of error of 5% it was decided to reject Ho. Thus, it can be concluded that family ownership partially influences tax avoidance. This is consistent with a previous research conducted by Sirait & Martani, (2014) on manufacturing companies in Indonesia and Malaysia resulting in a research that states that family companies in Malaysia do not influence tax avoidance while family companies in Indonesia have an influence on tax avoidance.

According to Chen et al., (2010a) in family companies, there are unique agency problems, namely greater conflicts between majority shareholders and minority shareholders, and smaller conflicts between owners and managers. The presence of the company founder as the majority shareholder in the family company has an impact on corporate tax avoidance. In the case of tax avoidance, the family company bears the potential benefits and costs greater than the non-family company.

According to Dyreng, Hanlon, & Maydew, (2011), an executive from the family of a company owner has a significant role in determining the level of tax avoidance. Conflicts of interest in family businesses are more about how to increase the family's prosperity so that they have the audacity to avoid tax by using complicated transactions as not to be easily detected.

CONCLUSION

Capital intensity affects tax avoidance. The conclusion is shown by the test results of 2.542 with a significance value of 0.012. Thus, it can be concluded that $H0_1$ was rejected. Capital intensity is one form of financial decision determined by the company's management to increase company profitability. Capital intensity is measured using the ratio between fixed assets (property, plant, and equipment) divided by total assets. The investment options in the form of assets or capital related to taxation is in terms of depreciation. Companies that decide to invest in the form of fixed assets can establish depreciation costs as a cost that can be deducted from income or is a deductible expense. According to Resmi (2013: 94) one of the costs included in the allowable deductible expense is depreciation on expenses to obtain tangible assets and amortization of expenses to obtain rights and on other costs that have a useful life of more than 1 year. A depreciation expense that is a deductible expense will cause the company's taxable income to decrease which will ultimately reduce the amount of tax that must be paid by the company.

Thin capitalization affects tax avoidance. The conclusion is shown by the test results of 3.376 with a significance value of 0,001. Thus, it can be concluded that $H0^2$ was rejected. In the business world, both in Indonesia and in the international world, companies tend to take advantage of differences in tax treatment between dividends and interest to avoid taxation using the thin capitalization scheme. Therefore, many countries issue regulations regarding thin capitalization rules. In Indonesia, in 2015, a thin capitalization rule was also issued, namely PMK-169 / PMK.010 / 2015 which limits the value of Debt to Equity Ratio to 4: 1.

Family ownership affects tax avoidance. Thin capitalization affects tax avoidance. The conclusion is shown by the test results of 13,110 with a significance value of 0,000. Thus, it can be concluded that $H0^3$ was rejected. This is assumed to occur because compared to non-family companies, family owners are more willing to pay higher taxes, rather than having to pay tax penalties and face the possibility of damage to the company's reputation due to an audit by tax authorities. Moreover, the family as the majority owner of a company obviously has more power or voting rights than other shareholders. This allows the owner family of the company to determine the direction of the policy to be taken by the company.

SUGGESTIONS

Companies increasing fixed assets can do so by revaluing assets. Revaluation of fixed assets is carried out because there is a material discrepancy between costs and income, due to differences between market prices and acquisition prices. Revaluation is conducted by the company in order to reasonably calculate costs and income that as much as possible reflects the actual ability and value of the company. The manifestation of the increase and decrease in the value of fixed assets due to revaluation with the estimated counterpart which is recorded in a capital account (equity) under the term "difference in the revaluation of fixed assets", so that the depreciation in the following year is based on the new value after revaluation. The differential excess value of the revaluation is subject to a final 10% income tax.

Corporate decisions in funding with debts from shareholders may indicate tax avoidance, because the interests of shareholders in minimizing tax expenses by presenting a larger interest expense are more indicative of tax avoidance. It is preferable that when the company needs funding, the shareholders increase their paid-up capital so that interest does not increase, or the interest expense does not appear.

In examining family ownership, the researcher should retrieve data of the ownership structure of the company and the company's deed in order to obtain data that is absolutely objective. Many companies' ownership belongs to families but in the development of investments many families form legal entities, therefore in the research of family ownership it is not considered as a family company based on data obtained from published financial statements. To obtain more comprehensive, accurate and explicit information, future researchers are advised to examine the amendment to the company's deed.

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