



Effect of Intra Group Transaction, Thin Capitalization and Executive Characters on Tax Avoidation with Multinationality as a Moderation

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Abstract

The purpose of this study is to examine the factors of tax avoidance in business groups / corporate groups in Indonesia, especially those belonging to the property sector which is listed on the Indonesia Stock Exchange (IDX) using variables such as intragroup transaction, thin capitalization, executive character and multinationality and firm size, profitability, intangible assets and debts as control variables. In this research, the object taken is secondary data, namely the financial statements of business groups / corporate groups included in the property sector group in 2012–2016. The data obtained from the IDX. Therefore, the author decided to choose the last 5 years period, 2012 until 2016. The data used in this study was in the form of balanced panel data, where the data of each unit object (cross section) will be observed in the same time period. The results showed that variables of intra group transaction and executive character had positive and significant effect on tax avoidance, while thin capitalization proved to have no effect on tax avoidance. While the multinationality variable managed to moderate the influence of intra group transaction, executive character and thin capitalization on tax avoidance.

Keywords:

Tax avoidance
Intra group transactions
Thin capitalization
Executive character
Multinationality.

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1. Introduction

In the 2017 State Budget (APBN), the revenue from the taxation sector still holds the dominant portion, which is 85.6% of the total state revenue. The amount is very significant because of the total state revenue of 1,750.3 trillion rupiahs, 1,498.9 trillion is revenue derived from taxation. With an average contribution of 77.6% to the total state income over a period of five years, tax should be an important mainstay sector that must be continuously optimized by the state.

But in reality, this sector often seems sluggish in achieving its revenue realization. Tax revenue since 2009 has always been below the target, although in 2015 the Directorate General of Taxes (DGT) has recorded the first time in the history of the country of Indonesia, the realization of tax revenues exceeded 1,000 trillion rupiahs and is still continuing in 2016. The percentage of realization of targets is only ranges between 81% - 99%, even showing a downward trend with an average of only 92.4%.

One of the main factors in low tax revenues in developing countries like Indonesia is the proliferation of tax avoidance activities (Besley & Persson, 2014). This happens because taxpayers still do not consider taxes as a form of contribution to the state, but the burden should be reduced as much as possible because it can hinder the pace of development of the company.

Such problems are based on agency theory, namely conflicts that might arise between managers (agents) and shareholders (principle) are the results of aggressive tax planning strategies adopted by public companies (Sartori, 2008). When the managers are encouraged to follow the interests of shareholders, they tend to act for maximize profits, one of the ways is by reducing the tax burden on the company.

At present, in context of business competition, taxation is one of the important issues, in the planning and strategic decisions of the company, especially in terms of determining the location and investment of the company. Even taxes have become a major concern of every company in its efforts to be more competitive (Anouar & Houria, 2017). This makes the company to further strengthen their tax planning by conducting tax avoidance practices to make the company's financial performance increasing.

According to Turyatini (2017), the number of tax cases that occur in companies going public does not rule out the possibility of also happening in property sector companies. This is because of the many gaps that exist in the tax regulations relating to this sector, which are used by the companies to carry out tax avoidance. The DGT is faced with the threat of losing potential income taxes due to reporting of land and building transactions, including improper real estate and apartments. This kind of thing can happen because the buy-sell transaction agent does the calculation and payment of the tax not based on the actual transaction price, but uses the Tax Object Selling Value (NJOP), which is generally worth less than the actual value of the transaction.

With such layered challenges, DGT is required to be more observant to read and take advantage of every opportunity that arises to increase tax revenue. One such opportunity can be seen from the government's priority agenda, or what is called "Nawacita", which focuses on physical infrastructure development programs. Even based on the Financial Note of the Republic of Indonesia Fiscal Year 2018, the theme of the Government Work Plan (RKP) of 2018 is "Spurring Investment and Infrastructure for Growth and Equity", in which there are ten national priorities and one specific priority, of which eleven priorities are 3 priorities related to the property sector, namely the priority of housing and settlements; infrastructure, connectivity and maritime affairs; and regional development.

The private sector also looks to be intensifying to develop its performance. This can be seen from the outlook for Gross Domestic Product (GDP) growth from the business sector as shown in Figure I.3. Based on the Indonesian Financial Notes 2017 and 2018, the construction and real estate sectors are expected to grow by 12.3% and 13.1%. This number is the highest compared to other sectors.

With such great opportunities, DJP as the spearhead of state revenues must ensure that tax obligations from the property sector can be carried out well and the opportunity to obtain additional coffers of state revenues can be achieved. So that there is no potential for additional tax revenues lost due to tax avoidance practices carried out by related taxpayers.

So far there have been many studies that study aspects of corporate taxation in general, but there are still few that focus on tax avoidance in business groups / groups specifically. In fact, most large-scale property developers are part of a large business group / group of companies. Some researchers who focus on studying tax avoidance in the corporate group sector are Anouar and Houria (2017). In 2017, through its journal, Anouar and Houria examined the factors that significantly affected tax avoidance actions in the group of companies. The study was conducted on a sample of 45 company groups in Morocco that were listed on the exchange in the period 2011-2015. With the dependent variable in the form of Effective Tax Rate (ETR), the independent variables used consist of Firm Size, Profitability, Intangible Assets, Debts, Multinationality, and Intra-Group Transaction. From the results of the regression carried out it was produced that only Debts, Multinationality, and Intra-Group Transaction were used to maximize the opportunity for tax avoidance, namely by reducing the group tax burden.

Meanwhile, Kang, Park, and Jang (2006) focus on testing hypotheses for transferring out-of-company's resources in the interests of controlling shareholders (tunneling), not specifically examining tax avoidance practices. Their research is conducted by observing intra-group ownership and intra-group transactions in the form of sales, purchases, accounts receivable, and debt to test whether there is a flow of resources out from the company for the benefit of controlling shareholders. From this study it is known that intragroup transactions play an important role in the tunneling activities carried out by companies owned by a group / family.

Other research is conducted by Taylor and Richardson (2012) about tax management practices in a group of companies. The study found that the policy of transfer pricing for a transaction and the use of intra-group debt (thin capitalization) is the technique that most often used to avoid taxes. The study was conducted on 203 registered companies in Australia on the period of 2006-2009.

In addition, Richardson, Taylor, and Lanis (2013) also examined the factors that significantly influence the aggressiveness of transfer pricing. The research was conducted on 183 companies in Australia that were registered for the year 2009. With the level of aggressiveness of transfer pricing as the dependent variable, Company Size, Profitability, Intangible Assets, Leverage, Multinationality, and Tax Haven Utilization became the independent variables tested. In the other side, the industrial sector becomes the controlling variable. The study resulted that the Company Size, Profitability, Intangible Assets, Leverage, and Multinationality proved to have a significant effect on aggressiveness of transfer pricing which also indicated the existence of tax management techniques carried out by the group.

Based on some of the studies described above and after finding out how great the opportunities the DJP has for the growth of the property sector in Indonesia, the authors decided to examine the factors of tax avoidance in business groups / groups in Indonesia, especially those belonging to the property sector listed on the Stock Exchange. Indonesia Securities (IDX) by using variables such as intra-group transactions, thin capitalization, executive character and multinationality and with firm size, profitability, intangible assets and debts as the control variable.

2. Literature Review

2.1. Agency Theory

The main theory underlying this research is agency theory. Agency theory is based on the existence of agency relations. Agency relationships are contracts where one or more owners of economic resources (principle) involve other parties (agents) to manage these resources on behalf of the principal. The principal here is the shareholders. They delegate business decisions to managers who are representatives or agents of shareholders. The problem that arises as a result of a company ownership system like this is that agents do not always make decisions that aim to fulfill the interests of the principal.

Associated with tax avoidance, the agency cost that arises in the form of costs to compile financial statements and auditing costs from external parties to ensure that managers do not take risky actions that can harm the principal, one of which is tax avoidance. In addition, agency costs can also arise when managers use asymmetric information so that managers' decisions do not aim to maximize owner's wealth. For example, managers carry out tax avoidance to reduce the tax burden so that their performance looks good and get incentives, whereas the profits generated are not from operations that can increase shareholder wealth in the long run, but from risky activities that can have an impact on shareholders' losses in the future. Future due to damage to reputation and tax sanctions if this action is known to the tax authority.

2.2. Tax Avoidance and Tax Evasion

As explained earlier, until now Taxpayers still do not consider taxes as a form of contribution to the state, but the burden must be reduced as much as possible because it can hinder the pace of development of the company. They did not measure that main problem of budget performance is related to country's budget spending (Bandiyono & Utami, 2019). They, and perhaps the majority of humans, still adhere to the oldest economic principles that apply on the face of the earth, namely to get the maximum profit by issuing the lowest costs. This condition referred to as the company's aggressiveness in taxation. Furthermore, interpreting corporate tax aggressiveness as an act of manipulating taxable income made by companies through tax planning actions, both legally (tax avoidance) or illegal (tax evasion).

Tax avoidance is an arrangement aimed at minimizing or eliminating tax burdens by considering the consequences of the tax caused. In contrast to tax evasion that violates the law, tax avoidance does not violate the law at all. This is because the efforts made in the tax avoidance effort utilize loopholes of the tax regulations themselves. Furthermore, it needs to implement competitive strategy which is proved to moderate positively and significantly negative impact on the effect of tax information on trading value (Suhendra & Murwaningsari, 2019).

Some researchers have tried to determine the concept of tax avoidance, including Flesch (1968) which defined it as art in avoiding taxes without violating the rule of law. Whereas Oats (2005) considers the definition too broad and fails to understand the difference between tax avoidance that can and cannot be accepted. While the study of Sikka and Haslam (2007) classifies tax avoidance as a legal activity, while questions about what is legal are still ambiguous. Similarly, research from Killian and Koltitz (2004) concludes that tax avoidance is a legal practice because tax regulations often lead to differences interpretation. From the several definitions and definitions above, the common thread that can be drawn is that tax evasion is an act to minimize the tax that must be paid by using methods that are not in accordance with applicable regulations, so that it is categorized as unlawful. Whereas tax avoidance does not violate the rules / applicable law, but instead uses the gaps contained in the rules themselves as a form of efficiency in a company's tax obligations in order to obtain greater profits. Several alternative approaches to measure tax avoidance activities of companies, including measuring the Effective Tax Rate (ETR). Based on these studies, there are several alternative ETR calculations, namely GAAP ETR, Current ETR, ETR Cash, Long-run cash ETR, and ETR Differential.

2.3. Development of Hypotheses

Hypothesis is a theory while the truth still needs to be tested after the researcher explores the research problems carefully and establishes basic assumptions. Based on the above framework, this study proposes the following hypotheses: Effects of Intra-Group Transactions on Tax Avoidance. Next, intra-group transactions are used to move income from minority shareholders to the parent company. Further, what is meant by transactions in this case are sales, purchases, debt and accounts receivable transactions carried out between subsidiaries and affiliated parties. Based on these explanations the hypothesis proposed is:

H1: Intra-Group Transactions have a significant positive effect on tax avoidance.

2.4. Effect of Thin Capitalization on Tax Avoidance

Taylor and Richardson (2012) who examined the practice of international tax avoidance, tested a sample of 203 public companies in Australia from 2006 to 2009, found that thin capitalization had a positive significant effect on tax avoidance. Furthermore, in Taylor and Richardson (2012) it was found that the practice of thin capitalization tended to be used in conjunction with the practice of tax havens to maximize the chances for tax avoidance by increasing the complexity of transactions involving tax haven countries. It is also stated that changes in revenue affect the accuracy of analyst predictions (Tambun, Murwaningsari, & Mayangsari, 2018). Dyreng, Hanlon, and Maydew (2008) found that companies that carry out tax avoidance proved to have a higher level of debt compared to companies that did not do tax avoidance. Rego (2003) found that companies with high levels of debt have a low ETR because these companies get a reduction in their tax due to interest charges. According to him, multinational companies get incentives to finance their investments in other countries with debt if the country has a higher tax rate. This is in line with Dahlby (2008) which states that the level of debt has a positive effect on tax avoidance. Based on these explanations the hypothesis proposed is:

H2: Variable thin capitalization has a significant positive effect on tax avoidance.

2.5. Influence of Executive Character on Tax Avoidance

Dyreng, Hanlon, and Maydew (2010) conducted research on tax avoidance by individual executives, the study discussed the influence of individual executives on corporate tax avoidance. This study found that individual company leaders have a significant role in the level of corporate tax avoidance. Dahlby (2008) also conducted a study on the influence of executive character on tax avoidance. They state that the more executives are risk takers, the higher the level of tax avoidance. Further, Rachmawati (2019) also found that asymmetric information leads to different task execution on stakeholders and shareholders. Based on these explanations the hypothesis proposed is:

H3: The executive character has a positive significant effect on tax avoidance.

2.6. Effects of Intra-Group Transactions on Tax Avoidance with Multinationality as Moderation

Based on tax regulations, interest expense can be taken from the taxable income (deductible), while dividend distribution is not a deduction from taxable income (non-deductible). Therefore, the company will get an incentive in the form of a tax reduction at a higher rate due to the interest expense. On the other hand, interest income will be obtained by the group of companies in the country with lower rates.

H4: Multinationality moderates the influence of Intra-Group Transactions on tax avoidance

2.7. Effect of Thin Capitalization on Tax Avoidance with Multinationality as Moderation

Multinational companies generally implement efficient tax planning for the entire group of companies so it is possible for companies with subsidiaries to earn income from abroad to carry out greater tax avoidance activities (Taylor & Richardson, 2012). Based on the results of his research, Taylor and Richardson (2012) found that multinationality is a variable that has a positive significant effect on tax avoidance. Next, it was reported that foreign-controlled companies more than doubled tax compliance compared to domestic companies. Furthermore, Rego (2003) and Dyreng et al. (2008) found that multinational companies tend to have the opportunity and ability to reduce tax payable compared to companies that are purely domestic. In particular, companies that have overseas operations that produce more profits from abroad have broader incentives and coverage for tax avoidance (Dyreng et al., 2008; Rego, 2003).

H5: Multinationality moderates the effect of thin capitalization on tax avoidance

2.8. The Influence of Executive Character on Tax Avoidance with Multinationality as Moderation

Multinational companies have the opportunity to significantly reduce taxes by operating in jurisdictions with low tax rates, by diverting profits from jurisdictions with high tax rates to jurisdictions with low tax rates. This can be done by utilizing the differences in tax rules between jurisdictions and allocating expenses that can reduce deductible expenses such as interest expenses and research and development expenses. Whereas Desai, Foley, and Hines (2006) found that companies with large international exposure, extensive intragroup transactions, and the use of intangible assets positively affected tax avoidance. Multinational companies have a greater chance of tax evasion because they operate in various regions of the country with different tax regulations and tax rates. Based on the description, the next hypothesis is:

H6: Multinationality moderates the influence of executive character on tax avoidance.

3. Research Methodology

Based on the hypothesis built on the theoretical foundation and the variables mentioned in the previous section, the authors propose the research model as follows:

$$CETR_{i,t} = \alpha_0 + \beta_1 IGT_{i,t} + \beta_2 TCAPI_{i,t} + \beta_3 RISK_{i,t} + \beta_4 IGT_{i,t} * MULTI_{i,t} + \beta_5 TCAPI_{i,t} * MULTI_{i,t} + \beta_6 RISK_{i,t} * MULTI_{i,t} + \epsilon_{it}$$

Information:

- CETR : Tax avoidance, using CETR proxy.
 IGT : Intra Group Transaction.
 TCAP : MAD ratio.
 RISK : Executive character.
 MULTI: The number of subsidiaries abroad is divided by the total subsidiaries.
 α : Constants.
 ε : Error.

3.1. Operational Definition and Variable Measurement

According to Sandjaja and Albertus (2006) independent variables are variables that are thought to be the cause of the emergence of other variables and usually these variables are manipulated, observed, and measured to determine their relationship to other variables. In this study used six types of financial ratios of independent variables, namely:

i. Intra-Group Transaction

Intra-Group Transaction in this study acts as X1. Hence, Intra-Group Transaction can be measured from Transactions that Occur Between Interrelated Parties divided by Total Transactions of the Company.

ii. Thin capitalization

The definition of thin capitalization in this study refers to that thin capitalization is the company's financing strategy to finance its business operations by prioritizing debt use compared to equity. In this study, the measurement of thin capitalization was calculated by MAD ratio. According to Taylor and Richardson (2012), the greater the MAD ratio, the more the company relies on debt for financing, which means it is increasingly towards the practice of thin capitalization.

iii. Executive Character

The executive character can be known by the calculation of company risk (corporate risk) owned by the company (Paligorova, 2010). Corporate risk is a reflection of standard deviations or deviations from earnings both deviations are less than planned or maybe more than planned, the greater the deviation of company earnings indicates the greater the risk of existing companies. Paligorova (2010) tried to measure company risk by calculated through a standard deviation from EBITDA (Earning before Income Tax, Depreciation, and Amortization) divided by the total assets of the company.

3.2. Selection of Data Sources and Samples

In this study, the object is secondary data, namely the financial statements of business groups / corporate groups included in the property sector group in 2012-2016 obtained from the IDX. Therefore, the author decided to choose the last 5 years period, namely 2012 until 2016. The data used was in the form of balanced panel data. The data of each unit object (cross section) will be observed in the same time period. Sampling will be done by non-probability sampling method with purposive sampling technique, namely sampling techniques with certain considerations (Sugiyono, 2016).

The sample used is that companies included in the property sector are divided into several sub-sectors, namely the building construction sub-sector, the property sub-sector, and the real-estate sub-sector. The sample selection uses a purposive sampling technique, by eliminating members of the population who have the following criteria:

1. Companies with negative pre-tax profit values.
2. Companies with incomplete financial report data.
3. Companies with $CETR \leq 0$ or $CETR > 1$.

4. Results and Discussion

4.1. Description of Research Data

The data of this study using secondary data from companies in the property sector divided into several sub-sectors, namely the construction sub-sector, the property sub-sector, and the real-estate sub-sector.

Table-1. Sample determination criteria.

No.	Information	Number of companies
1	Property sector companies listed on the IDX	61
2	Less: Companies with negative pre-tax profit values	13
3	Less: Companies with incomplete financial report data	10
4	Less: Companies with $CETR \leq 0$ or $CETR > 1$	7
Number of study samples		31
Number of research observations (31 x 5 years)		155

Source: Sample taken from companies in the property sector.

Based on the criteria set by the purposive sampling method in the [Table 1](#), we got 31 companies with a total of 155 observations (31 companies x 5 years) from the property sector listed in the IDX during 2012 to 2016.

4.2. Results of Descriptive Statistical Analysis

Dependent variables used in this study are tax avoidance, independent variables namely, intra-group transactions, thin capitalization and executive character. The moderating variable is multinationality. And the control variables in this study are firm size, profitability, intangible assets, and debts. This research was conducted by taking financial report data on property sector companies listed on the IDX in 2012-2016. [Table 2](#) will describe and show the influence between the variables in this study.

Based on [Table 2](#), it is known that there are nine research variables (one dependent variable, four control variables, one moderating variable and three independent variables) with a total sample size of 155 samples. The following is an explanation of each variable based on [Table 2](#).

Tax avoidance (Y) indicates that the minimum or smallest value is 0,000355 the maximum value is 0.752152 and the average value of tax avoidance is 0.190961 where the standard deviation of tax avoidance is 0.142585. Based on these data, it can be seen that the average corporate tax avoidance in the property sector is very small because it is below 1 or the level of payment / compliance tax payment is quite good.

Intra-Group Transaction (X1) indicates that the minimum or smallest value is 0.023548, the maximum value is 0.365482 and the average value of intra-group transactions is 0.073664 where the standard deviation of intra-group transactions is 0.254654. Based on these data it can be seen that the average property sector company listing on the IDX conducted intra-group transactions of 7.37%, meaning that the majority of property sector companies did not conduct intra-group transactions.

Thin Capitalization (X2) indicates that the minimum or smallest value is 0.012576, the maximum value is 4.418979 and the average value of thin capitalization is 1.106542 where the standard deviation of the thin capitalization is 0.129852. Based on these data, it can be seen that the average property sector company listing on the IDX carried out thin capitalization of 110.65% meaning that the majority of property sector companies conduct tax avoidance by making debt.

Executive character (X3) shows that the minimum or smallest value is 0.002452 the maximum value is 0.536153 and the average value of executive character is 0.015658 where the standard deviation of the executive character is 0.065421. Based on these data, it can be seen that the average property sector company listed on the IDX avoids tax evasion through exclusive individuals of 8.08%. The executive role is very vital in implementing government programs in compliance with paying taxes. Small enough property sector companies that carry out tax avoidance through their executives are only 8.08%.

Multinationality (Z) shows that the minimum or smallest value is 0.00000 the maximum value is 0.325865 and the average value of multinationality is 0.152352 where the standard deviation of multinationality is 0.052158. Based on these data, it can be seen that the average property sector company listed on the IDX controlled by foreigners is only 15.23%. The majority of property sector companies listed on the IDX are controlled by indigenous people so that tax avoidance is expected to be small.

Firm size (C1) indicates that the minimum or smallest value is 0.137190 the maximum value is 0.748647 and the average value of the firm size is 0.320196 where the standard deviation of the firm size is 0.121177.

Profitability (C2) shows that the minimum or smallest value is 0.272727 the maximum value is 1.00000 and the average value of profitability is 0.000000 where the standard deviation of profitability is 0.449467.

Intangible Asset (C3) shows that the minimum or smallest value is 0.00000 the maximum value is 1.065800 and the average value of intangible assets is 0.623879 where the standard deviation of intangible assets is 0.205288.

Debts (C4) indicate that the minimum or smallest value is 0.115283 the maximum value is 0.567599 and the average value of debts is 0.133262 where the standard deviation of debts is 0.141603.

Table-2. Descriptive analysis.

Information	C4	C3	C2	C1	X1	X2	X3	Y	Z
Mean	0.133262	0.623879	0.272727	0.320196	0.254654	1.106542	0.015658	0.190961	0.152352
Median	0.229501	0.033333	0.000000	0.274967	0.002654	0.832496	0.035624	0.174429	0.000253
Maximum	0.567599	1.065800	1.000000	0.748647	0.365482	4.418979	0.536153	0.752152	0.325685
Minimum	0.115283	0.000000	0.000000	0.137190	0.023548	0.012576	0.002452	0.000335	0.000000
Std. dev.	0.141603	0.205288	0.449467	0.121177	0.652382	0.129852	0.065421	0.906254	0.052158
Skewness	0.785520	4.066738	1.020621	1.675644	1.235588	2.215854	1.254887	0.142585	2.253589
Kurtosis	3.752225	6.022423	2.041667	6.131552	5.985882	2.985124	3.652489	4.253654	5.256891
Jarque-Bera	17.04769	60.08904	11.65328	48.21153	55.58753	38.51385	24.36842	22.32584	72.02156
Probability	0.029486	0.254000	0.002948	0.000000	0.254152	0.325642	0.253589	0.225421	0.589723
Sum	12.82939	23.31333	15.00000	17.61076	15.25842	14.25529	18.25388	9.002587	11.25843
Sum Sq. dev.	1.082777	2.275728	10.90909	0.792928	2.874582	1.248652	1.983425	2.258743	4.283794
Observations	149	149	149	149	149	149	149	149	149

4.3. Estimated Panel Data Regression Model

i. Common Effect Model (CEM)

The Common Effect Model or Pooled Least Square Model is an estimation model that combines time series data and cross section data using the OLS (Ordinary Least Square) approach to estimate its parameters. This approach, do not pay attention to individual dimensions and time, so that the behavior of data among the companies are assumed to be the same in various time periods. Basically, the Common Effect Model is the same as OLS by minimizing the number of squares, but the data used is not only time series data or cross section data but rather panel data that is applied in the form of pooled. For full results can be seen in Table 3.

Table-3. Common effect model.

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.410247	0.063203	6.490937	0.0000
C1	1.352565	0.254625	-0.066885	0.0046
C2	-0.322647	0.014740	-2.811984	0.0070
C3	0.256488	0.256144	0.256812	0.0025
C4	2.256487	0.014785	2.002548	0.0002
X1	0.236929	0.248959	2.879214	0.0259
X2	-0.036814	0.018962	-0.285461	0.0464
X3	-0.007950	0.025974	-0.220996	0.0260
Z	1.253654	0.320861	0.964023	0.0045
X1*Z	2.078026	0.254022	0.254892	0.0054
X2*Z	0.021583	2.250861	0.922076	0.0025
X3*Z	0.944192	2.930925	0.322148	0.0287
R-squared	0.349821	Mean dependent var		0.118436
Adjusted R-squared	0.297617	S.D. dependent var		0.122648
S.E. of regression	0.117348	Akaike info criterion		-1.377396
Sum squared resid	0.702300	Schwarz criterion		-1.231408
Log likelihood	111.4177	Hannan-Quinn criter.		-1.320941
F-statistic	6.662708	Durbin-Watson stat		1.312878
Prob. (F-statistic)	0.005756			

Based on Table 3 it can be concluded that the probability value of all variables has a value below 0.05 so that it can be concluded that the value of p value is smaller than the critical limit (α) of 0.05. This means that the predictor variable in question has a significant influence on the response statistically.

ii. Fixed Effect Model

The fixed effects assume that differences between individuals (cross section) can be accommodated from the difference in intercepts. In order to estimate Fixed Effects, the model with interception differs between individuals, then the dummy variable technique is used. This estimation model is often referred to as the Least Squares Dummy Variable technique or abbreviated as LSDV. The full results of the Fixed Effect Model can be seen in Table 4.

Based on Table 4 it can be seen that the probability value of all variables has a value below 0.05 so it can be concluded that the value of p value is smaller than the critical limit (α) of 0.05. This means that the predictor variable in question has a significant influence on the response statistically.

4.4. Model Accuracy Test

i. Restricted F Test

This test is used to determine the Fixed Effect or Common Effect model which is more appropriate to use in estimating panel data. The hypothesis in this test is:

H0: Common effect model.

H1: Fixed effect model.

The basis of the rejection of the hypothesis above is to compare the probability values of the Chi-square cross-section. If the Chi-square cross-section probability value is <0.05 , then the fixed effect model is used and if the Chi-square cross-section probability value is > 0.05 then the common effect model is used. For more details, see Table 5.

Table-4. Fixed Effect model.

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.385224	0.076121	5.060700	0.0000
C1	2.356842	0.002546	2.215002	0.0024
C2	0.254789	0.215402	0.254872	0.0040
C3	0.247892	0.248012	0.024582	0.0028
C4	0.217895	0.248923	0.235624	0.0357
X1	0.249971	0.143399	2.743182	0.0088
X2	0.012591	0.145771	0.086376	0.0316
X3	0.013198	0.039315	2.335684	0.0388
Z	0.358464	0.323458	0.325455	0.0258
X1*Z	0.367289	2.352580	0.025002	0.0485
X2*Z	0.210548	0.289201	0.087201	0.0288
X3*Z	0.425682	2.025849	0.895124	0.0035
Effects specification				
Cross-section fixed (Dummy variables)				
R-squared	0.667908	Mean dependent var		0.318436
Adjusted R-squared	0.018655	S.D. dependent var		0.122648
S.E. of regression	0.121499	Akaike info criterion		-1.162492
Sum squared resid	0.605242	Schwarz criterion		-0.651535
Log likelihood	45.96853	Hannan-Quinn criter.		-0.964901
F-statistic	7.078963	Durbin-Watson stat		6.895498
Prob(F-statistic)	0.042678			

Table-5. Restricted F test.

Effects test	Statistic	d.f	Prob.	
Cross-section F	6.943212	(3.136)	0.0002	
Cross-section Chi-square	28.003256	4	0.0001	
Cross-section fixed test equation				
Dependent variable: Y				
Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.007950	0.035974	-0.220996	0.8260
C1	0.036814	0.128962	-0.285461	0.7764
C2	0.322647	0.114740	-2.811984	0.0070
C3	0.410247	0.063203	6.490937	0.0000
C4	0.587420	0.027852	0.325823	0.0023
Z	0.014426	0.253250	0.258795	0.0225
X1*Z	2.046878	0.028868	-1.021540	0.5871
X2*Z	0.388490	0.135247	0.025876	0.2158
X3*Z	0.245820	0.326580	0.278549	0.2458
R-squared	0.235419	Mean dependent var		0.418436
Adjusted R-squared	0.184562	S.D. dependent var		0.222648
S.E. of regression	0.217348	Akaike info criterion		-1.477396
Sum squared resid	0.602300	Schwarz criterion		-1.331408
Log likelihood	41.97838	Hannan-Quinn criter.		-1.420941
F-statistic	8.662708	Durbin-Watson stat		2.700197
Prob(F-statistic)	0.067756			

Based on Table 5, it can be explained that the Chi-square cross-section probability value is 0.0001. The conclusion that can be drawn from the probability of Chi-square 0,0001 cross-section <0.05 is the fixed effect model that will be used in this study.

4.5. Results of the Panel Data Regression Equation Model

The analysis used in this study is panel data regression analysis because the data analyzed is in the form of pooled data (a combination of cross section / company data with time series / year data). Complete results from the panel data regression model can be seen in Table 6.

Table-6. The panel data regression model.

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.385224	0.076121	5.060700	0.0000
C1	2.356842	0.002546	2.215002	0.0024
C2	0.254789	0.215402	0.254872	0.0040
C3	0.247892	0.248012	0.024582	0.0028
C4	0.217895	0.248923	0.235624	0.0357
X1	0.249971	0.143399	2.743182	0.0088
X2	0.012591	0.145771	0.086376	0.0316
X3	0.013198	0.039315	2.335684	0.0388
Z	0.358464	0.323458	0.325455	0.0258
X1*Z	0.367289	2.352580	0.025002	0.0485
X2*Z	0.210548	0.289201	0.087201	0.0288
X3*Z	0.425682	2.025849	0.895124	0.0035
Effects specification				
Cross-section fixed (Dummy variables)				
R-squared	0.667908	Mean dependent var	0.318436	
Adjusted R-squared	0.018655	S.D. dependent var	0.122648	
S.E. of regression	0.121499	Akaike info criterion	-1.162492	
Sum squared resid	0.605242	Schwarz criterion	-0.651535	
Log likelihood	45.96853	Hannan-Quinn criter.	-0.964901	
F-statistic	7.078963	Durbin-Watson stat	6.895498	
Prob(F-statistic)	0.042678			

Table-7. VAR stability condition check.

Roots of characteristic polynomial	
Endogenous variables: Y C1 C2 C3 C4 X1	
X2 X3 Z X12 X22 X32	
Exogenous variables: C	
Lag specification: 1 2	
Date: 07/08/19 lime: 14:59	
Root	Modulus
0.997917	0.997917
0.996049	0.996049
0.939037 - 0.051409i	0.940443
0.939037 + 0.051409i	0.940443
0.788527 - 0.076448i	0.792225
0.788527 + 0.076448i	0.792225
0.723224 - 0.230695i	0.759127
0.723224 + 0.230695i	0.759127
0.407272 - 0.624764i	0.745789
0.407272 + 0.624764i	0.745789
0.698557	0.698557
0.461339 - 0.334504i	0.569848
0.461339 + 0.334504i	0.569848
0.564998	0.564998
-0.273048.0.393705i	0.479123
-0.273048 + 0.393705i	0.479123
-0.351685.0.256787i	0.435456
-0.351685 + 0.256787i	0.435456
-0.415806 - 0.110047i	0.430122
-0.415806 + 0.110047i	0.430122
0.003539 + 0.427672i	0.427687
0.003539 - 0.427672i	0.427687
0.157739 - 0.271408i	0.313917
0.157739 + 0.271408i	0.313917
Warning: At least one root outside the unit circle.	
VAR does not satisfy the stability condition.	

Based on [Table 6](#) it is known that the value of $X_1 = 0.249971$, $X_2 = 0.012591$, $X_3 = 0.013198$, variable $Z = 0.358464$, variable Z moderates $X_1 = 0.367289$, variable Z moderates $X_2 = 0.210548$, variable Z moderates $X_3 = 0.425682$ and $C = 0.385224$. From these results a regression equation can be made as follows: $Y = 0.385224 + 0.249971X_1 + 0.012591X_2 + 0.013198X_3 + 0.367289ZX_1 + 0.210548ZX_2 + 0.425682ZX_3$.

The interpretation of the results of the regression analysis above are as follows:

1. If the influence of X_1 , X_2 , X_3 and variable Z is ignored, then the average tax avoidance growth in property sector companies listed on the Stock Exchange in 2012-2016 is 38.52%.
2. X_1 (intra-group transaction) has a positive effect on tax avoidance of property sector companies registered in the Indonesian securities market.
3. X_2 (thin capitalization) has a positive effect on tax avoidance of property sector companies registered in the Indonesian securities market.
4. X_3 (executive character) has a positive effect on tax avoidance of property sector companies registered in the Indonesian securities market.
5. Z (multinationality) has a positive effect on tax avoidance on intra-group transaction variables in property sector companies registered in the Indonesian securities market.
6. Z (multinationality) has a positive effect on tax avoidance in the thin capitalization variable in property sector companies registered in the Indonesian securities market.
7. Z (multinationality) has a positive effect on tax avoidance on executive character variables in property sector companies registered in the Indonesian securities market.

To find out the relationship and the magnitude of the relationship between intra group transactions, thin capitalization and executive character towards tax avoidance which are moderated by multinationality variables and conclusions based on hypothesis testing used in this study, multiple regression analysis is used with the VAR estimation method. To find out the stability of the model can be seen in [Table 7](#).

Based on [Table 7](#) it can be seen that the model has fairly good stability. It can be seen from the AR roots value below one, it is said that the model is stable.

4.6. Hypothesis Testing

i. T Test

The t test is a statistical test that aims to determine the effect of independent variables individually (partial) on the dependent variable. The results of the t test can be seen if $p\text{-value} < \alpha = 0.05$ (5%) then there is a significant influence between the independent variable and the dependent variable and vice versa if $p\text{-value} > \alpha = 0.05$ (5%) then there is no significant influence between the independent variable and the dependent variable. The t test output in Eviews 10 can be seen in the [Table 8](#).

Table-8. T Test

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.385224	0.076121	5.060700	0.0000
C1	2.356842	0.002546	2.215002	0.0024
C2	0.254789	0.215402	0.254872	0.0040
C3	0.247892	0.248012	0.024582	0.0028
C4	0.217895	0.248923	0.235624	0.0357
X1	0.249971	0.143399	2.743182	0.0088
X2	0.012591	0.145771	0.086376	0.0316
X3	0.013198	0.039315	2.335684	0.0388
Z	0.358464	0.323458	0.325455	0.0258
X1*Z	0.367289	2.352580	0.025002	0.0485
X2*Z	0.210548	0.289201	0.087201	0.0288
X3*Z	0.425682	2.025849	0.895124	0.0035
Effects specification				
Cross-section fixed (dummy variables)				
R-squared	0.667908	Mean dependent var	0.318436	
Adjusted R-squared	0.018655	S.D. dependent var	0.122648	
S.E. of regression	0.121499	Akaike info criterion	-1.162492	
Sum squared resid	0.605242	Schwarz criterion	-0.651535	
Log likelihood	45.96853	Hannan-Quinn criter.	-0.964901	
F-statistic	7.078963	Durbin-Watson stat	6.895498	
Prob. (F-statistic)	0.042678			

Based on [Table 8](#) and the applicable provisions it can be concluded that the value of p value for all variables is smaller than $\alpha = 0.05$. $X_1 < \alpha$ ($0.0088 < 0.05$) variable $X_2 < \alpha$ ($0.0316 < 0.05$) and $X_3 < \alpha$ (0.0388

<0.05). This means that the variables X1, X2 and X3 partially influence the model on the response variable (Y). The variable Z moderate the variables X1, X2 and X3, this can be seen from the value of p all below 0.05. In other words intra group transactions, thin capitalization and executive character, have an effect on tax avoidance. While the multinationality (Z) variable also moderates intra group transaction variables, thin capitalization and executive character, influencing tax avoidance.

ii. F Test

F test is a statistical test that aims to determine the effect of all independent variables together (Simultaneous) on the dependent variable. In Eviews, the F test output can be seen in Table 9. F-statistics are also called F counts, while Prob (F-statistics) are also called p-values. The F test results can be determined if the Prob F counts <0.05, then there is an influence between the independent variables together on the dependent variable. For the full results can be seen in Table 9.

Table-9. F test.

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.385224	0.076121	5.060700	0.0000
C1	2.356842	0.002546	2.215002	0.0024
C2	0.254789	0.215402	0.254872	0.0040
C3	0.247892	0.248012	0.024582	0.0028
C4	0.217895	0.248923	0.235624	0.0357
X1	0.249971	0.143399	2.743182	0.0088
X2	0.012591	0.145771	0.086376	0.0316
X3	0.013198	0.039315	2.335684	0.0388
Z	0.358464	0.323458	0.325455	0.0258
X1*Z	0.367289	2.352580	0.025002	0.0485
X2*Z	0.210548	0.289201	0.087201	0.0288
X3*Z	0.425682	2.025849	0.895124	0.0035
Effects specification				
Cross-section fixed (dummy variables)				
R-squared	0.667908	Mean dependent var		0.318436
Adjusted R-squared	0.018655	S.D. dependent var		0.122648
S.E. of regression	0.121499	Akaike info criterion		-1.162492
Sum squared resid	0.605242	Schwarz criterion		-0.651535
Log likelihood	45.96853	Hannan-Quinn criter.		-0.964901
F-statistic	7.078963	Durbin-Watson stat		6.895498
Prob(F-statistic)	0.042678			

The Table 9 can be concluded that the F value of statistics is 7.078963 with p value of 0.00000 where the p value is smaller than 0.05 (0.042678 <0.05), so that it can be concluded that together the independent variables significantly influence the dependent variable.

4.7. Determination Analysis (R2)

The test of the determination coefficient is a test to find out how much influence all the independent variables have on the dependent variable. In this case, the influence of intra-group transactions, thin capitalization and executive character of tax avoidance with multinationality as a moderating variable. Test results of the coefficient of determination can be seen in the value of R-squared and Adjusted R-squared. The use of Adjusted R-squared is carried out if the regression model experiences modifications such as addition and / or reduction of independent variables (with the right assumptions as if there were multicollinearity problems in the regression model). The complete test results of the coefficient of determination can be seen in the Table 10.

The Table 10 can be concluded that the value of R2 is 0.667908 meaning that the variation of all independent variables (intra-group transactions, thin capitalization and executive characters can affect the tax avoidance dependent variable is 66.79 (0.667908), while the remaining 33.21% is influenced by other variables outside the research.

4.8. Discussion

i. Effect of Intra Group Transaction on Tax Avoidance

Based on the results of statistical tests, Intra Group Transaction has an effect on Tax Avoidance. This can be seen in the Table 11.

Table-10. The test of the determination coefficient.

Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.385224	0.076121	5.060700	0.0000
C1	2.356842	0.002546	2.215002	0.0024
C2	0.254789	0.215402	0.254872	0.0040
C3	0.247892	0.248012	0.024582	0.0028
C4	0.217895	0.248923	0.235624	0.0357
X1	0.249971	0.143399	2.743182	0.0088
X2	0.012591	0.145771	0.086376	0.0316
X3	0.013198	0.039315	2.335684	0.0388
Z	0.358464	0.323458	0.325455	0.0258
X1*Z	0.367289	2.352580	0.025002	0.0485
X2*Z	0.210548	0.289201	0.087201	0.0288
X3*Z	0.425682	2.025849	0.895124	0.0035
Effects specification				
Cross-section fixed (dummy variables)				
R-squared	0.667908	Mean dependent var		0.318436
Adjusted R-squared	0.018655	S.D. dependent var		0.122648
S.E. of regression	0.121499	Akaike info criterion		-1.162492
Sum squared resid	0.605242	Schwarz criterion		-0.651535
Log likelihood	45.96853	Hannan-Quinn criter.		-0.964901
F-statistic	7.078963	Durbin-Watson stat		6.895498
Prob (F-statistic)	0.042678			

Table-11. Partial hypothesis test results (t test) variable x₁.

(Intra group transaction to Y)

Variable	Coefficient	Std. error	t-statistic	Prob.
X1	0.247892	0.143399	2.743182	0.0088
C	0.385224	0.076121	5.060700	0.0000

Based on Table 11, it can be seen that the t-stat value for X1 (intra group transaction) is 2.743182 with ρ value below 0.05. This means that intra-group transaction variables partially have a positive effect. To see the size of the effect of these variables t count compared to t table. Based on Table 11 t count = 2.743182 while t table 1.976 ($2.743182 > 1.976$) means that intra group transaction variables have a positive and significant effect on tax avoidance. The smaller the occurrence of intra-group transactions in a holding company, the smaller the tax avoidance by a company will be. This research is in line with research conducted by Anouar and Houria (2017) which states that intra-group transactions are used to maximize tax avoidance.

Based on these data it was concluded that there was tax avoidance carried out by companies in the property sector. Thus, the first hypothesis which states the influential intra-group transaction is accepted.

ii. Effect of Thin Capitalization on Tax Avoidance

Based on the results of the thin capitalization statistical test, it affects tax avoidance. This can be seen in the Table 12.

Table-12. Partial hypothesis test results (t test) variable x₂.

(Thin capitalization to Y)

Variable	Coefficient	Std. error	t-statistic	Prob.
X2	0.012591	0.145771	0.086376	0.0316
C	0.385224	0.076121	5.060700	0.0000

Table 12 indicates that the t-stat value for X1 (thin capitalization) is 0.788191 with ρ value below 0.05. This means the thin capitalization variable. To see the size of the effect of these variables t count compared to t table. Based on Table 12 t count = 0.086376 while t table 1.976 ($0.086376 < 1.976$) means that the variable thin capitalization has no significant effect on tax avoidance. The variable effect of thin capitalization on tax avoidance is very small.

So, it can be concluded that in each tax avoidance activity / value there are differences in companies that do thin capitalization and do not do thin capitalization. Thus, the second hypothesis which states that thin capitalization has an effect on tax avoidance is rejected.

Companies in the property sector lend funds to third parties (banks) based on the number of units to be built, as well as banks to avoid the occurrence of bad loans. The policy is that lending to property companies is based on the number of housing units, offices or buildings to be built. Hence, it is better to impose regulation for preventing company's investors to make a false prediction on the company's financial source (Rachmawati, 2019).

This study is not in line with the research of Khomsatun and Martani (2015) in ISSI companies which states that thin capitalization decreases the positive relationship to tax avoidance. While the Taylor and Richardson (2012) study states that thin capitalization has an effect on tax avoidance.

iii. *Effect of Executive Character on Tax Avoidance*

The results of the test of executive character statistics influencing Tax Avoidance can be seen in the Table 13.

Table-13. Partial hypothesis test results (test t) variable x3.

(Executive Character to Y)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X3	0.013198	0.039315	2.335684	0.0388
C	0.385224	0.076121	5.060700	0.0000

Based on Table 13, it can be seen that the t-stat value for X1 (executive character) is 2.335684 with p value below 0.05. This means that executive character variables have a positive effect. To see the size of the effect of these variables t count compared to t table. Based on Table 13 t count = 2.335684 while t table 1976 (2.335684 > 1.976) means that the executive character variable has a significant effect on tax avoidance. The influence of executive character variables on tax avoidance is quite large. This study successfully proved the influence of RISK on CASH ETR. This means that the more executives are risk takers, the higher the level of tax avoidance.

Property companies in Indonesia or those sampled in this study on average are family companies, even though the company has gone public the average management is still controlled by the family so the executive character that deviates from the company's vision and mission is pretty much especially in tax avoidance.

iv. *Effect of Intra Group Transaction on Tax Avoidance with Multinationality as a Moderating Variable*

Based on the results of the intra-group transaction statistical test, it influences Tax Avoidance with multinationality as a moderating variable. This can be seen in the Table 14.

Table-14. Partial hypothesis test results (t test).

Variable intra group transaction on Y with multinationality as moderation.				
Variable	Coefficient	Std. error	t-statistic	Prob.
X1*Z	0.367289	2.352580	0.025002	0.0485
C	0.385224	0.076121	5.060700	0.0000

Table 14 shows that the t-stat value for intra-group transaction variables with multinationality as moderation is 0.025002 with p values below 0.05. This means that the moderating variable of multinationality contributes positively to intra-group transactions against tax avoidance contributing to tax avoidance of 36.73% (0.367289).

v. *Effect of Thin Capitalization on Tax Avoidance with Multinationality as a Moderating Variable*

Based on the results of the thin capitalization statistical test, it affects Tax Avoidance with multinationality as a moderating variable. This can be seen in the Table 15.

Table-15. Partial hypothesis test results (t test).

Variable thin capitalization against Y with multinationality as moderation.				
Variable	Coefficient	Std. error	t-statistic	Prob.
X2*Z	0.210548	0.289201	0.087201	0.0288
C	0.385224	0.076121	5.060700	0.0000

Table 15 indicates that the t-stat value for the thin capitalization variable with multinationality as moderation is 0.087201 with p value below 0.05. This means that the moderating variable of multinationality contributes positively to the thin capitalization variable towards tax avoidance of 21.05% (0.210548).

vi. *Effect of Executive Characters on Tax Avoidance with Multinationality as Moderating Variables*

Based on the results of the executive character statistical test, it influences Tax Avoidance with multinationality as a moderating variable. This can be seen in the [Table 16](#).

Table-16. Partial hypothesis test results (t test).
Variables of executive character towards y with multinationality as moderation.

Variable	Coefficient	Std. error	t-statistic	Prob.
X3*Z	0.425682	2.025849	0.895124	0.0035
C	0.385224	0.076121	5.060700	0.0000

The t-stat value for executive character variables with multinationality as moderation is 0.895124 with p values below 0.05 in [Table 16](#). This means that the moderating variable of multinationality contributes positively to executive character variables towards tax avoidance of 42.57% (0.425682).

vii. *Effects of Intra Group Transaction, Thin Capitalization and Executive Character on Tax Avoidance with Multinationality as Moderating Variables*

Based on the results of the intra-group transaction statistical test, thin capitalization and executive character have a positive effect on tax avoidance with multinationality as a moderating variable. This can be seen in the [Table 17](#).

Table-17. The results of the simultaneous hypothesis test (F test).
Variables X1, X2, and X3 against Y with multinationality as moderation.

Cross-section faced (dummy variables)			
R-squared	0.667908	Mean dependent var	0.318436
Adjusted R-squared	0.018655	S.D. dependent var	0.122648
S.E. of regression	0.121499	Akaike info criterion	-1.162492
Sum squared resid	0.605242	Schwarz criterion	-0.651535
Log likelihood	45.96853	Hannan-Quinn criter.	-0.964901
F-statistic	7.078963	Durbin-Watson stat	6.895498
Prob(F-statistic)	0.042678		

Based on [Table 17](#), it can be concluded that the F value of statistics is 7.078963 with p value of 0.042673 where the p value is smaller than 0.05 ($0.042673 < 0.05$), so that the independent variables can significantly influence the dependent variable.

5. Conclusions and Recommendations

The results showed that Intra Group Transaction and executive character had a positive and significant effect on tax avoidance, while thin capitalization proved to have no effect on tax avoidance. Hence, the multinationality variable was managed to moderate the influence of Intra Group Transaction, executive character and thin capitalization on tax avoidance. Intra group transaction variables, thin capitalization, and executive character simultaneously have a positive and significant effect on tax avoidance with multinationality as a moderating variable.

Based on the results of the discussion and conclusions above, the researcher can provide suggestions that the Directorate General of Taxes must always innovate and breakthrough to improve taxpayer compliance (individuals and corporations) not only in the form of sanctions but preventive measures related to tax compliance must continue to do. For further research, it is expected to use a relatively large number of samples and with various sector companies.

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