Tax Incentives and Tax Aggressiveness: A Study on Electrical and Electronics Companies in Malaysia

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ABSTRACT

This paper aims to determine factors contributing to the tax aggressiveness among incentivised electrical and electronic (E&E) companies in Malaysia. The specific objectives were to examine whether characteristics of incentivised companies, such as size, profitability, leverage, capital intensity, and ownership, influence tax aggressiveness. It employs correlation analysis, multiple regression, and independent sample t-test to test a sample of 230 incentivised E&E companies (from 2017 to 2019). The findings suggested that only profitability, leverage, and capital intensity significantly influence tax aggressiveness, while size and ownership were insignificant towards tax aggressiveness.

Keywords: Tax incentive; tax aggressiveness; tax incentive; electrical & electronics

INTRODUCTION

The electrical and electronic (E&E) sector has been the backbone of the development of Malaysia's manufacturing sector since the 1980s. Through various forms of government support, including the tax incentive offered to the manufacturing sector, especially the E&E subsector, this sector contributed 6.4 per cent to the gross domestic product (GDP) for the year 2020 with an added value of RM86.1 billion, while 2016 to 2020, the E&E sector grew at the rate of 5.6 per cent per year, higher compared to the overall growth of the manufacturing sector which is only 3.3 per cent per year (Bernama 2021). The E&E sector's achievements are supported by the tax incentive offered as World Bank (2015) found that companies with tax incentives benefit from increased profits and reduce the company's investment costs. In addition, tax incentives allow companies to operate more efficiently as incentive reduces operating costs for companies and subsequently improve the company's performance (Chege et al. 2020; Easson & Zolt 2002). From the investment aspect, previous studies highlighted the effectiveness of tax incentives in attracting investment (Chirinko 1993; Klemm & Parys 2009).

In general, studies on tax incentives conclude that tax incentives can attract investment if the tax incentives are offered to only specific industries in a targeted manner, even if the implementation is not practical in terms of costs (Zee et al. 2002). However, various studies have also found that tax incentives hurt the host country's revenue (Hemels S. 2017; VEPR et al. 2020). Boadway et al. (1995) also found that this negative effect is linked to the treatment or loss carry-forward facilities offered that do not attract investors. The tax incentives offered in Malaysia are also seen as failing to meet the objectives of its introduction. One of the main factors is the lack of emphasis on the importance of the taxation system compared to the economic base and the country's institutional environment (OECD 1995). In addition, tax incentives were reported as one of the factors contributing to the country's tax gap (Mascagni et al. 2014), and the tax gap can be further widened due to the difficulty of tax administrators to administer and control the granting of tax incentives, thus causing losses to government revenue collection through tax aggressiveness (Easson & Zolt 2002). In addition to the results of earlier studies, the Department of Statistics of Malaysia and the Inland Revenue Board data show an increasing trend in tax incentive claims and revenue losses compared to the contribution of the E&E sector to GDP growth from 2015 to 2018, as shown in Figure 1.
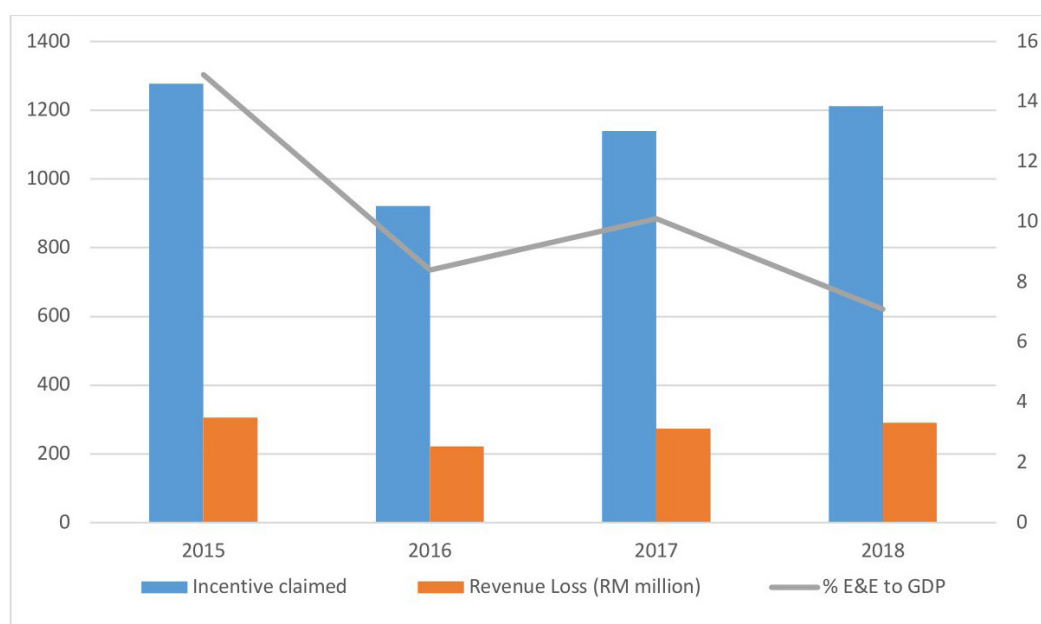
FIGURE 1. Comparison Between Tax Incentive Claims, Revenue Loss and the % Contribution of the E&E sector to GDP growth from 2015 to 2018

The tax gap, as it is commonly known, is the difference between the amount of tax that the government should be able to collect within its jurisdiction during an annual accounting period and the actual amount of tax paid during that same period. The importance of studying the tax gap is not limited to improving the measurement of the tax gap but also to acquiring a better understanding of its potential impact on the country's fiscal economic policy (Murphy 2021; OECD 2017), using the definition of tax gap as "the difference between tax payable and tax collected", appears to support the need to include policy gaps in studying the tax gap. This policy gap refers precisely to taxation legislation allowing exemptions, tax deferrals, and even special tax rates, referred to as tax incentives (IMF 2013). Companies receiving tax incentives have the advantage of engaging in tax evasion activities and aggressive tax planning, as raised by Klemm & Parys (2009) and OECD (1995). Mascagni et al. (2014) provide support by arguing that the diversity of tax incentives to attract investment is one of the factors that cause the tax gap. This is because it gives advantages to such companies to plan their tax burden through transfer pricing activities, taking advantage of the loopholes of the taxation system and weaknesses in tax administration. Most studies and reports on the tax gaps look only at the macro level or "top-down approach" that uses macroeconomic data to estimate the tax gap (Holland & Vann 1998; Klemm & Parys 2009). Thus, the motivation of this study is to extend the study by

the World Bank (2015) and produce evidence that the provision of tax incentives causes additional costs to the government, considering these companies receiving tax incentives have additional opportunities to minimise the amount of tax paid to the government. With various tax incentives being actively introduced in Malaysia, it is crucial to have a "bottom-up approach" study which uses tax authority operational data to study the effect of incentivising industries towards tax aggressiveness and its contribution to the tax gap so that the original intention of offering tax incentives is achieved successfully.

Previous studies have found various factors that contribute to the company's tax aggressiveness, including the characteristics of the board of directors (Edwin & Victor 2019), business strategy (Higgins et al. 2015) and company status (Abdul Wahab et al. 2017). This study identifies the company's characteristics, namely its size, profitability, indebtedness, capital intensity, and ownership, affecting the tax aggressiveness by applying resource-based theory (RBT) to support the discussion. This study applies a similar research concept as Rosmaria et al. (2021) that focuses on the relationship between the company's characteristics, such as profitability, size, capital intensity, and indebtedness towards aggressive tax planning, as well as the study by Devi et al. (2018), that evaluates the relationship between company's characteristics with its tax burden. This study also uses a similar approach to Halizam et al. (2020) and Abd Hamid (2015), which study the characteristics of companies

receiving tax incentives. However, this study's primary focus is to fill the research gap on the characteristics of companies receiving tax incentives that can encourage tax aggressiveness after almost twenty years of introducing tax incentives to the E&E sector in Malaysia to examine the influence of the characteristics of E&E companies granted with the tax incentives such as size, profitability, indebtedness, capital intensity and ownership towards tax aggressiveness in Malaysia. This study will contribute to the field of taxation, especially on issues relating to tax incentives, tax gaps, and factors that cause the inability of the government to obtain optimum spillover effects from the provision of tax incentives to foreign and local investors. The scope of this study focuses on the E&E sector in the manufacturing industry since E&E is the leading subsector that attracts most foreign direct investment (FDI) into Malaysia and is offered various incentives by the government (Tang et al. 2014) and reinvestment allowance enjoyed by E&E is the most prominent tax incentive among the tax incentives offered (Bank Negara Malaysia 2017).

THE MALAYSIA ELECTRICAL & ELECTRONIC INDUSTRY

The E&E industry in Malaysia developed through three main phases, namely initial (1970 to the late 1980s), growth (from the late 1980s to the early 2000s), and the contraction phase (from the early 2000s to the present). During the initial stage, the E&E industry kicked off through the Second Malaysia Plan (1971 to 1975) by introducing various measures, including tax incentives, resulting in changes in Malaysia's economic focus to export-based manufacturing activities. The Malaysian government has successfully attracted substantial FDIs following the introduction of tax incentives, where in 1980, the total FDI was USD$0.93 billion (World Bank 2023), with nearly 27% of inward FDI contributed by E&E (Tang et al., 2014). This has helped improve the country's unemployment rate from 15% in 1960 to only 4% in 1980. The evolution of the E&E industry in Malaysia continues with the second phase, the growth phase, where the E&E sector has become the second-largest industry, with inward FDI increased to nearly 52% in the year 2000 (Tang et al. 2014) along with offering job opportunities and introducing value-added activities and exports. Finally, the third phase, namely the contraction phase, shows that the contribution of E&E in inward FDI dropped to only 38% of total FDI in 2008 (Tang et al. 2014). Despite that, the E&E exports grew from USD$48 billion in 2000 to USD$82 billion in 2018 and USD$87 billion in 2019. During this growth phase, Malaysia's export market was found to be performing relatively low compared to other East Asian countries and the Pacific region since 2000. This situation is due to the China effect, which is the expansion of the E&E industry in China, shifting foreign investments toward China's E&E market (Eltgen et al. 2021).

Malaysia continues to use tax incentives to support the E&E sector to curb any subsequent crisis that can incapacitate affected companies, particularly the small and medium-sized (SMEs)(Abd Hamid 2015). The tax incentives available to E&E industry players serve not only to encourage foreign investment but also to strengthen the supply chain for domestic industry players. Pioneer status (PS) and investment tax allowance (ITA) are the main tax incentives offered to companies for five years. Apart from the two main incentives above, the Malaysian government also provides various types of additional tax incentives to the manufacturing sector, among others, reinvestment allowance (RA), accelerated capital allowance (ACA), industrial building system (IBS), and group emissions (Bank Negara Malaysia 2017).

LITERATURE REVIEW

TAX AGGRESSIVENESS AND TAX GAP

Mohamed (2012), who researched the tax gap due to the underground economy, asserts that the presence of a tax gap is a negative indicator of the effectiveness of the taxation system and serves as a baseline for prospective revenue collection. Following the definition given by HMRC (2016), the metric employed in this study to evaluate the tax gap is the difference between the statutory tax rate (STR) and the effective tax rate (ETR). This is a similar measurement used in another study on aggressive tax planning conducted by Rosmaria et al. (2021) among businesses listed in Bursa Malaysia's Access, Certainty, and Efficiency Market. In that study, aggressive tax planning was defined as the difference between the taxes a business paid and the taxes it was required to pay to the government. This measurement was thought to be the best for this study's calculations on the effect of tax incentives on tax aggressiveness. The distinction between STR and ETR, according to Abdul Wahab et al. (2017), can quantify the impact of a company's tax evasion efforts on reducing taxable income.

COMPANY SIZE AND TAX AGGRESSIVENESS

Previous studies explained that a company's tax liability is affected by its' size (Kim & Im 2017). Lawal (2018) also pointed out a consistent finding that large-sized manufacturing companies are more likely to plan taxes aggressively than small-sized manufacturing companies. However, some studies found a negative relationship between size and tax aggressiveness, including a study by Bagdad et al. (2017) on tax audit cases covering 14 years period from 1993 to 2006 and Noor et al. (2010), which looked into the companies listed in Bursa also from the same range of years as Bagdad et al. (2017) found that company size has a negative relationship with the tax aggressiveness. While from the perspective of the relationship between company size and ETR, few studies found that there is a significant positive relationship

between company size and ETR (Aksoy Hazır 2019; Fernández-Rodríguez & Martínez-Arias 2014; Kraft 2014). Based on the insights from previous studies, this study suggests that as most E&E companies are larger-sized companies, they will have a higher ETR, and the first hypothesis of the study is as follows:

H$_1$ Company size negatively influences tax aggressiveness.

PROFITABILITY AND TAX AGGRESSIVENESS

The company's profitability is another factor affecting tax aggressiveness. Previous studies found that companies with high profitability are burdened with a higher ETR and, in return, the influence on tax aggressiveness is more negligible (Kim & Im 2017; Ribeiro et al. 2015; Yahaya & Yusuf 2020; Yinka & Uchenna 2018). However, that opinion contradicts the findings by Dyreng et al. (2017), Kraft (2014), Laguir et al. (2015), Manzon et al. (2002) and Noor et al. (2010) that profitable companies use tax incentives to reduce the company's ETR. Previous studies concentrate on a company's tax planning, neglecting profitability as a factor that could influence the tax aggressiveness arising due to the benefits of tax incentives. Therefore, this study suggests that the higher the profitability, the higher the ETR, thus reducing tax aggressiveness. Hence, the second hypothesis is as follows:

H$_2$ Company profitability negatively influences tax aggressiveness.

INDEBTEDNESS AND TAX AGGRESSIVENESS

Increasing the company's capital by borrowing can also be said to be one of the ways to reduce the tax burden (Ribeiro et al. 2015). Some studies find a positive relationship between levels of indebtedness and tax burden (Fernández-Rodríguez & Martínez-Arias 2014; Gupta & Newberry 1997). On the other hand, previous studies also reported conflicting results where a negative relationship was reported between the level of indebtedness and the tax burden due to the deduction of company interest expenses (Hadjidema et al. 2016; Nomura 2017). Meanwhile, some studies found a non-significant relationship between indebtedness and the tax burden (Minnick & Noga 2010; Pratama 2017; Vintilă et al. 2018). Based on the discussion, this study suggests that the higher the level of indebtedness, the lower the ETR, thus influencing tax aggressiveness. Therefore, the third hypothesis is formulated as follows:

H$_3$ Company indebtedness positively influences tax aggressiveness.

CAPITAL INTENSITY AND TAX AGGRESSIVENESS

A negative correlation between capital intensity and ETR was discovered by Noor et al. (2010) for 316 enterprises investigated from 1993 to 2006. Additionally, Gupta and Newberry (1997) discovered a substantial inverse association between capital intensity and ETR prior to or following the changes in tax-related law. The tax burden of the firm was not shown to be significantly correlated with capital intensity in research by Harris & Feeny (2003), Liu & Cao (2007), or Rosmaria et al. (2021). Based on prior research, this study hypothesises that a company's degree of fixed asset ownership compared to its total assets affects tax aggression by decreasing the ETR. The fourth supposition is put out.

H$_4$ Company capital intensity positively influences tax aggressiveness.

COMPANY OWNERSHIP AND TAX AGGRESSIVENESS

Salihu et al. (2015) found a significant positive relationship between multinational companies and tax evasion in the home country and the host country due to differences in tax treatment and incentives between the home country and the host country. The findings of Yoo & Koh (2014) and Hasan et al. (2016) shared a negative relationship between foreign ownership and tax evasion, especially in countries with high levels of morality. Based on the findings of these past studies, the fifth and final hypothesis is formulated as follows:

H$_5$ Foreign ownership positively influences tax aggressiveness.

Data and Variables

SAMPLE DATA

This study uses primary data from the Inland Revenue Board (IRBM), specifically the revenue collection data from the E&E sector. The E&E sector is selected as the sample of this study because it is an essential sector in Malaysia which contributes through the generation of export revenue and the creation of significant employment opportunities in Malaysia ever since Malaysia shifted its industrial focus from import-oriented to export-oriented industry and the enactment of the Investment Incentives Act 1968 (Malaysia 1971).

TABLE 1. Sample study

Sample	N
Electrical &Electronic companies granted tax incentives from 2017 to 2019	402
Minus: Companies with paid-up capital below RM2.5 million	161
Data that can be used for analysis	241
Minus: Case with incomplete data	1
Minus: Case with outlier data (ROA value exceeding +/-100%)	10
Final data for analysis	230

CONTROL VARIABLE

Table 1 shows the summary of the study sample. This study focuses on the E&E companies granted tax incentives, either PS, ITA, or RA, between 2017 and 2019, as declared by the companies through their tax returns. This study only covers three years of income tax reporting since no significant economic crisis can affect the characteristics of the data. This is because too many external factors may affect the collection and validity of data (Lin et al. 2017). This study also considers that Malaysia started lowering the income tax rate from 25% to 24% for companies with paid-up capital starting at RM2.5 million in 2016. The data is then filtered by considering companies with paid-up capital exceeding RM2.5 million to ensure that each unit of analysis is subject to a similar tax rate of 24%. This study uses the census data collection method and ensures that all data in the population will be included in the study. This method gives an advantage to this study since the data obtained focused only on what is to be studied (Irem Guceri 2014). In this case, the study focuses on all E&E companies that claim tax incentives in the form of PS, ITA, or RA for 2017 to 2019 with paid-up capital exceeding RM2.5 million will be analysed.

RESEARCH MODEL

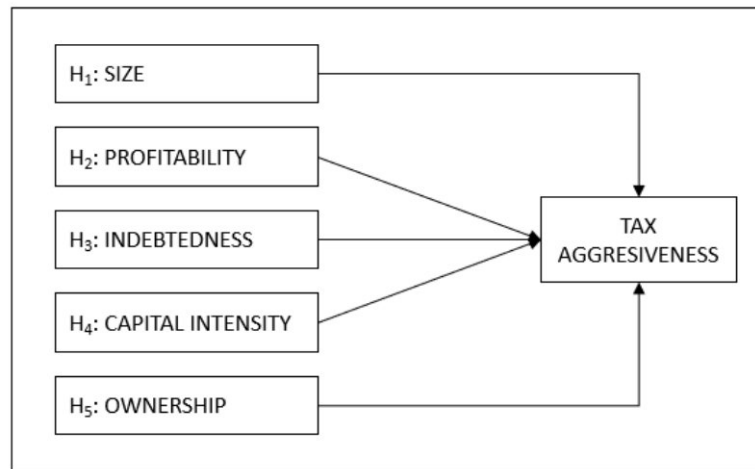The research model of this study is shown in Figure 2.

FIGURE 2. Tax aggressiveness model

Empirically, the relationship between dependent variable tax aggressiveness and independent variables, size, profitability, indebtedness and capital intensity are tested based on the following equation:

$$JC = \beta_0 + \beta_1 SAIZ + \beta_2 UNT + \beta_3 HUT + \beta_4 IM + \varepsilon$$

where:
JC	= Tax aggressiveness
SAIZ	= Size
UNT	= Profitability
HUT	= Indebtedness
IM	= Capital intensity
ε	= error

However, the relationship between dependent variable tax aggressiveness and independent variable ownership is tested using independent t-test analysis.

This study applies financial ratios in analysing the characteristics of companies benefitting from tax incentives in the form of savings on investment costs, which indirectly leads to subsequent effects by influencing tax aggressiveness. The financial ratios used to measure each variable of this study are adopted from previous studies, as shown in Table 2, which align with the available data obtained from IRBM. The matching of available data with the data required for variable measurement is critical in ensuring that the objectives of this study can be achieved successfully using IBM SPSS STATISTICS 26.0 (SPSS).

TABLE 2. Measurement of variables

Variables	Measurement	Reference
Dependent Variable		
Tax Aggressiveness (JC)	• JC: STR - ETR • A higher rate of difference between STR and ETR indicates the existence of tax aggressiveness.	(Rosmaria et al. 2021)
Independent Variables		
Size (SAIZ)	• Company's total assets. • Higher total assets indicate that the company is more significant in size.	(Hamzah et al. 2020)
Profitability (UNT)	• Return on assets ratio = Total profit before tax / Total assets • A higher rate of return on assets indicates that the company successfully uses assets effectively.	(Halizam et al. 2020)
Indebtedness (HUT)	• Debt ratio = Total debt / Total assets • A high ratio shows the company is in a high-risk position, while a low ratio shows it is in a better position.	(Amendola et al. 2018)
Capital Intensity (IM)	• The ratio of fixed assets of the company / Total assets • A higher rate of return on fixed assets indicates that the company is in a good position and can take advantage of tax incentives.	(Rosmaria et al. 2021)
Ownership (MIL)	• A dichotomous variable is used, where 1 indicates local ownership and 2 indicates the existence of foreign ownership in the company. • Foreign ownership influences the company's tax aggressiveness.	(Shi et al. 2020)

STATISTICAL ANALYSIS

Descriptive Analysis

This analysis produces descriptive statistics of the study's variables analysed using data from 230 E&E companies receiving tax incentives in Malaysia from 2017 to 2019. This includes descriptive data analysis on the dependent variable for this study, which is the tax aggressiveness and company characteristics, which are the independent variables of this study, including company size, profitability, indebtedness, and capital intensity of E&E companies that receive tax incentives. In addition, descriptive statistics will also investigate the percentage of local and foreign ownership companies benefitting from the tax incentives offered to the E&E companies. Information on the tax gap that exists among E&E companies can also be further explained using this analysis by measuring the resulting tax gap due to the tax aggressiveness of the company using the difference between STR and ETR as a measure.

Correlation Analysis

Before testing the hypothesis, a correlation test using Pearson's correlation analysis assesses the linear relationship between the independent and dependent variables. According to Kim (2019), when two variables exhibit a very strong correlation of 0.9 or greater, one of the variables must be removed. This step is essential to ensure that each variable measure does not carry any multicollinearity issues, which could distort the validity and reliability of this study.

Multiple Regression Analysis

The multiple regression analysis is used to achieve the study's objective to examine the characteristics of companies receiving tax incentives toward tax aggressiveness. The study hypothesised that the independent variables SAIZ, UNT, HUT, and IM of tax incentive recipients have an influence against tax aggressiveness, where SAIZ and UNT are hypothesised to have a negative influence on the dependent variable, JC, and the other variables HUT, IM and MIL have a positive influence towards the incentivised companies' tax aggressiveness.

Independent Sample T-Test

The last hypothesis involves a dichotomous independent variable consisting of two different groups, namely foreign and local ownership labelled one for local ownership and two for foreign ownership with ownership holding of 50% and above, to analyse whether the company ownership status can influence the tax aggressiveness. The independent sample t-test is a suitable statistical test for this hypothesis, which involves comparing the mean of two unrelated groups with the same dependent variable, the tax aggressiveness (JC).

RESULTS

DESCRIPTIVE ANALYSIS

Table 3 shows the average ETR and tax aggressiveness for the three-year observation period from 2017, 2018, and 2019. The average ETR paid by E&E companies

receiving tax incentives is 12.24% compared to 24% of current STR. Meanwhile, the average tax aggressiveness of companies involved in this study is 11.76%. This shows that additional tax aggressiveness exists when companies are granted tax incentives.

TABLE 3. Independent sample t-test findings (n = 230)

	Minimum	Maximum	Mean (%)	Standard Deviation
Effective tax rate (ETR)	-6.00	41.00	12.24	9.695
Tax aggressiveness (JC)	-16.90	30.37	11.76	9.695

Next, Table 4 shows descriptive statistics results on the independent variable of this study, namely, size (SAIZ), profitability (UNT), indebtedness (HUT), and capital intensity (IM) to study the variables' average value, minimum and maximum value, including the standard deviation of the data.

TABLE 4. Descriptive statistical analysis of non-dependent variables (n=230)

Independent Variables	Minimum	Maximum	Mean	Standard Deviation
Size (SAIZ) RM million	8.36	1,998.20	255.95	341.293
Profitability (UNT)	-0.07	0.39	0.10	0.08
Indebtedness (HUT)	0.02	0.89	0.39	0.19
Capital intensity (IM)	0.00	0.89	0.29	0.19

The average value for the total assets for the variable size of a company is RM255.95 million, with the total assets ranging from RM8.36 million to RM1,998.20 million, respectively, indicating that the E&E incentivised companies invest heavily in their asset. This data is then converted into a log of total assets to measure the size of tax incentive recipient companies for statistical analysis. Next, for the UNT variable, the average value of the ratio of return on assets used by companies receiving tax incentives from 2017 to 2019 is 0.10, indicating that the average profit earned by the incentivised companies selected as the sample is relatively low at an average of 10% of total asset. The HUT variable for incentive recipient companies from 2017 to 2019 has an average value of 38.66%, with a maximum value of 89% and minimum value of HUT at 2% of the value of the company's debt compared to the assets owned by the company means that most of the companies are in a high-risk situation considering that the company uses loans or debt at an average of 38.66% of total asset to run its operations. The descriptive analysis of the IM variable found an average of 28.79% of total fixed assets with a minimum and maximum ratio of 0% and 89%, respectively. The overall descriptive analysis suggests that the incentivised companies are in a better position to benefit from tax incentives because of the high percentage of fixed assets with the high ratio of indebtedness with the return on asset received relatively low.

Finally, Table 5 shows the ownership ratios where most tax-incentivised companies involved in this study are foreign-owned companies, with a percentage of 70.9, leaving the balance as locally owned companies. This shows that foreign-owned companies are more likely to take advantage of the tax incentives offered since the tax incentive is both offered to locally owned and foreign-owned companies.

TABLE 5. Percentage of ownership status (n=230)

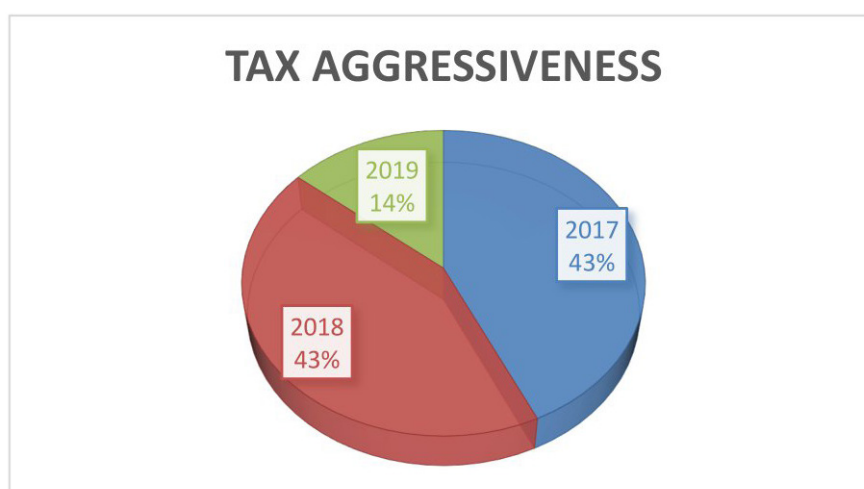| Ownership (MIL)	n	Percentage (%)
Foreign	163	70.9
Local	67	29.1

FIGURE 3. Percentage of tax aggressiveness from the year 2017 – 2019

From Figure 3, the tax aggressiveness is the lowest in 2019 compared to 2017 and 2018. This is partly due to external factors, such as the change of government, resulting in changes in taxation policies, for example, the abolishment of The Goods and Services Tax (GST) in 2018 after being implemented in April 2014 (SME Bank 2019). The reduction in tax aggressiveness is also due to the introduction of a special RA through the 2016 Budget, which allows an additional 2-year extension until 2018 for all projects that are eligible to claim RA (Ministry of Finance Malaysia 2016).

CORRELATION ANALYSIS

Based on Table 6, no correlation was found beyond 0.9, indicating no multicollinearity issues within the variables of this study, making the data fit for multiple regression analysis, which meant for the study's hypotheses testing.

TABLE 6. Pearson correlation analysis

Variables	JC	LogSAIZ	UNT	HUT	IM
Tax aggressiveness (JC)	1.000				
Size (SAIZ)	-0.007	1.000			
Profitability (UNT)	-2.93**	-0.050	1.000		
Indebtedness (HUT)	0.215**	0.007	-0.284	1.000	
Capital intensity (IM)	0.245**	0.193	-0.107	-0.062	1.000

** Correlation is significant at the 0.01 level (2-tailed).

MULTIPLE REGRESSION ANALYSIS

Table 7 shows the multiple regression analysis results of the relationship between independent variables size (SAIZ), profitability (UNT), indebtedness (HUT) and capital intensity (IM) with the dependent variable of tax aggressiveness (JC) for three years from 2017 until 2019.

Based on Table 7, the regression model's R^2 value is $R^2 = 0.161$, and it satisfies the significant condition with a value of $F_{(4, 225)} = 10.801$, $p = 0.05$. This means that the variation of three significant independent variables, profitability, indebtedness, and capital intensity, explains 16.1% of the variation in tax aggressiveness. This also suggests that other variables not considered in the study account for 83.9% of the volatility in tax aggressiveness. The R^2 value of 10% is suggested as the minimally acceptable R^2 value by (Falk 1992). Given the 10% minimal threshold, the R^2 value of 16.1% can be deemed satisfactory.

TABLE 7. Multiple regression analysis of the relationship between SAIZ, UNT, HUT, and IM with JC from 2017 until 2019.

Independent Variables	Coefficient	t	Sig.	Hypotheses testing result
(CONSTANT)	17.519	1.881	0.061	
Size (SAIZ)	-1.209	-1.060	0.290	Not supported
Profitability (UNT)	-27.941	-3.457	0.000**	Supported
Indebtedness (HUT)	8.517	2.614	0.010**	Supported
Capital intensity (IM)	12.398	3.885	0.000**	Supported

R $\quad$ = $\quad$ 0.401
R^2 $\quad$ = $\quad$ 0.161
Adjusted R^2 $\quad$ = $\quad$ 0.146
F $\quad$ = $\quad$ 10.801
** Correlation is significant at the 0.01 level (2-tailed)

Table 7 also shows the coefficient value for each independent variable towards the dependent variable JC. Through statistical findings, the result of SAIZ indicates no significant influence towards tax aggressiveness (p = 0.290). This means that the size of the company receiving tax incentives does not affect the tax aggressiveness, resulting in H1 not being supported. This aligns with a study by Rosmaria et al. (2021) and Sonia and Suparmun (2019), who reported that company size is not decisive for aggressive tax planning. This finding might be because the manufacturing industry heavily invests in plants and machinery, making the size differences between companies' assets most likely insignificant.

Next, UNT shows a significant negative influence towards tax aggressiveness with a value of ß = -27.941, t = -3.457, p = 0.001, resulting in H_2 being supported. The ß-value result means a 1% increase in UNT will reduce JC by 27.94%. The result is consistent with Ribeiro et al. (2015), which found that companies listed on the London main board pay higher taxes since they have more significant profits than others. This finding is due to companies receiving tax incentives being controlled when granting tax incentive approval. However, the situation is different when the company's profits are not encouraging. The company seems to practice aggressive tax planning by utilising available resources and opportunities to lessen its tax burden.

Meanwhile, HUT has a positive relationship towards tax aggressiveness with a value of ß = 8.517, t = 2.614, p = 0.010, which means a 1% increase in HUT will increase JC by 8.52%. This indicates that indebtedness positively influences tax aggressiveness, resulting in H_3 being supported. From the taxation aspect, companies are given tax deduction facilities for interest expenses subject to section 33(1)(a), Income Tax Act,1967 (ITA 1967). The company can adjust tax deductions made for interest expenses with this facility. This is in line with the findings of Kim & Im (2017), which found that companies with a high level of indebtedness will enjoy the benefits of the debt interest paid by the company.

Next, looking at the capital intensity, the result shows IM significantly positively influences tax aggressiveness (ß = 12.398, t = 3.885, p = 0.000), resulting in H_4 being supported. The capital intensity of companies receiving tax incentives influences tax aggressiveness positively. This means that companies receiving tax incentives with more fixed assets have the advantage of enjoying a reduction in tax burden. This is because the ownership of the plant and machinery enables the company to claim capital allowance under Schedule 3, ITA 1967. The company can claim interest expenses if the fixed assets are acquired through loans. The finding of the study is consistent with Gupta and Newberry (1997). Still, it contradicts the findings of Rosmaria et al. (2021) and Lawal (20, which found no relationship between capital intensity and aggressive tax planning.

INDEPENDENT SAMPLE T-TEST

Table 8 shows the result of the independent t-test concerning the independent variable, the ownership of tax-incentivised companies (MIL), with the tax aggressiveness (JC). Based on the analysis, the mean for local and foreign ownership groups is between 12.17 for local and 11.60 for foreign ownership, with the value F = 0.206 and p-value = 0.650. The statistical findings show a non-significant difference between the mean JC and no significant relationship between MIL and JC. This result indicates that ownership of the company does not influence tax aggressiveness, resulting in H_5 not being supported. Hidayat M & Mulda R (2019) also reported a similar result that foreign ownership has no significant effect on tax avoidance. However, the result contradicts Egger et al. (2010), which found that foreign-owned companies have more opportunities to take advantage of international tax rates and special tax treatments, suggesting foreign-owned companies have an advantage towards tax aggressiveness.

TABLE 8. Independent t-test result for the ownership of the tax-incentivised companies with the tax aggressiveness

Dependent Variable	Ownership (MIL)	N	Mean	t	df	F	Sig.
Tax aggressiveness (JC)	Local	67	12.1655	0.401	228	0.206	0.650
	Foreign	163	11.5999	0.411	129.499		

ADDITIONAL ANALYSIS

Additional analysis was also carried out on the same sample but divided according to each year to see the consistency of the relationship between SAIZ, UNT, HUT, IM, and JC with the primary study model and to analyse further the characteristics of companies receiving tax incentives that give impact on JC regardless of the year. This is relevant to understanding further the variables contributing to tax aggressiveness.

Analysis by Year of Study

Table 9 presents the result for regression model analysis according to year. The regression model shows the multiple regression analysis results on the relationship between independent and dependent variables according to separate years under study. The regression model suggested that profitability for the year 2019 has a more significant influence towards tax aggressiveness based on the higher coefficient value towards tax aggressiveness.

TABLE 9. Regression model analysis results according to years 2017, 2018 and 2019

VARIABLE	2017		2018		2019	
C	25.251 (15.780)	0.113	12.705 (13.323)	0.343	-5.353 (24.929)	0.831
Size (SAIZ)	-2.587 (1.895)	0.176	-0.848 (1.626)	0.603	2.404 (3.160)	0.453
Profitability (UNT)	-12.532 (13.317)	0.349	-22.651 (14.027)	0.110	-48.900* (17.140)	0.008
Indebtedness (HUT)	9.183 (5.228)	0.082	7.775 (4.760)	0.106	7.912 (10.061)	0.438
Capital intensity (IM)	16.346* (5.342)	0.003	16.152* (5.480)	0.004	-19.097 (31.586)	0.550
R	0.377[a]		0.415[a]		0.610[a]	
R^2	0.142		0.172		0.372	
Adjusted R^2	0.105		0.136		0.290	
F	3.844*	0.006	4.733*	0.002	4.582*	0.005
No. of observation	98		96		36	

* Correlation is significant at the 0.05 level (2-tailed).

Analysis by Company Ownership

According to the regression models, the local and foreign ownership model can be used to predict JC, considering that the value of F (local) = 6.140 and the value of F (foreign) = 7.942 are significant, with a value of $p = <0.001$. However, two (2) factors in the foreign ownership model have a statistically significant relationship with JC, namely HUT (p-value = <0.006) and IM (p-value = <0.001) compared to the local model with only one (1) significant negative factor which is UNT with a value of $p = <0.001$. Moreover, additional analysis revealed that the foreign ownership model demonstrates two characteristics of companies receiving tax incentives that are significant to tax aggressiveness, indebtedness and capital intensity, compared to local ownership with only profitability, with a significant relationship with tax aggressiveness. This suggests that foreign ownership companies receiving tax incentives in Malaysia are more likely to be involved in tax planning activities than locally-owned companies receiving similar tax incentives. This may happen because foreign investors intend to maximise their tax incentives in their branches abroad. On the other hand, local companies are moderate in tax planning because they can also enjoy other tax benefits from their status as residence companies. This situation is in line with the study by Shi et al. (2020), which highlights that companies with foreign ownership are more likely to engage in tax aggressiveness activities due to tax planning opportunities.

TABLE 10. Results of regression model analysis by ownership

VARIABLE	Local		Foreign	
C	28.435 (15.812)	0.077	18.851 (11.500)	0.103
SAIZ	-1.135 (1.888)	0.550	-1.780 (1.423)	0.213
UNT	-57.914** (13.345)	0.000	-18.202 (10.354)	0.081
HUT	-2.732 (6.709)	0.685	10.485* (3.778)	0.006
IM	-0.956 (5.378)	0.859	17.421** (3.938)	0.000
R	0.533[a]		0.409[a]	
R^2	0.284		0.167	
Adjusted R^2	0.238		0.146	
F	6.140**	0.000	7.942**	0.000
No. of observation	67		163	

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

This study shows that capital indebtedness and capital intensity are consistent with the resource-based theory, as the incentivised company has access to more resources, which may enable them to recognise more opportunities for tax avoidance and increase their capacity to use those resources for tax planning (Koester 2013). However, this study reveals otherwise for profitability, especially when the company's profitability is strong, as RBT states that the company will use all resources to implement and maximise its profits (Olavarrieta 1996). The profitability's negative impact on tax aggressiveness is not in line with the theory because the incentivised company is more cautious about the reputational risks involved with disclosing tax arrangements that may be considered excessive tax planning (Higgins et al. 2015). In contrast, as the company's profitability decreases, the study shows that the company will become consistent with RBT and utilise all available opportunities and resources to reduce the tax burden and tax planning aggressively. These results provide evidence that the tax incentive given to companies in Malaysia influences tax aggressiveness. Furthermore, the study shows that the tax aggressiveness produced by the E&E incentivised companies is at 11.76%, while the recent study by Rosmaria et al. (2021) shows that the average tax gap of the companies in the ACE market is at 3%. This study's results are also in line with the investigations of Easson & Zolt (2002) and Mascagni et al. (2014), who have highlighted that the provision of tax incentives creates opportunities for aggressive tax planning activities, tax evasion, and abuse of tax incentives hence, the government and tax authorities shall introduce control mechanism upon granting and monitoring the tax incentive.

CONCLUSIONS

This study examines the characteristics of companies receiving tax incentives toward tax aggressiveness, and the variation of three of the incentivised companies' characteristics, such as profitability, indebtedness, and capital intensity, show influence towards tax aggressiveness. This study has the role of adding value to the existing research literature, primarily related to the effect of tax incentives on revenue collection and tax gaps and the factors that lead to the government's failure to obtain spillover effects from the provision of tax incentives to foreign and local investors considering that most studies are macro (Klemm 2009; Klemm & Parys 2009; Murphy 2019). Apart from the contribution to the field of knowledge, this study also provides benefits and input to IRBM to improve the implementation of enforcement and auditing activities among tax incentive recipients, especially foreign-owned companies. Next, it will guide tax collection officials on the appropriate data of companies receiving tax incentives to help improve the quality and identify new factors that can be studied for future empirical studies. On top of that, the findings of this paper would be relevant to the government and academicians in understanding the balance between offering tax incentives for FDIs and tax aggressiveness due to the provision of tax incentives. Although tax incentives expose the tax system to the risk of tax aggressiveness, they remain relevant in supporting companies, especially small and medium companies. Lastly, this study hopes to assist the government in introducing a more compatible initiative with current economic conditions that are more competitive with the economies of other Asian countries. Although this study contributes significantly to understanding aggressive tax planning among

incentivised companies, this study has several limitations worth noting. The size of most companies in this study is somewhat similar, which may provide a biased result, as most companies are also foreign-owned. Secondly, the period covered has neglected recent samples of 2020 and 2021 due to the COVID-19 pandemic that has disrupted economic activities worldwide. Therefore, future studies should include more recent data post-COVID-19 besides looking at other incentivised industries other than electrical and electronic. From the point of view of using the resource-based theory, the findings are contradictory to the theory only for profitability as this study found that when companies have a higher profit, the companies are more compliant, and the tax aggressiveness is lower. This finding is exciting and should be studied further to test the theory in the future. Overall, although there are some limitations of this study, the results still have a significant impact on the field of study and in assisting future studies on the effects of giving tax incentives to the overall national taxation system and whether it remains relevant to the development of the system and the current economy that is becoming more and more vibrant with new developments in line with the development of technology.

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