Determinants of Corporate Tax Avoidance Strategies among Multinational Corporations in Malaysia

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ABSTRACT

This study examines the determinants of multinational corporations’ (MNCs) tax avoidance strategies by looking at their effective tax rates (ETRs). This study utilized the tax return form data from the Inland Revenue Board Malaysia (IRBM) to model ETRs of the MNCs in Malaysia, as a proxy of the tax avoidance. The findings suggest that MNCs in Malaysia can be associated with the tax avoidance since their ETRs are below the statutory tax rates (STRs) as stipulated under the Income Tax Act 1967. The results also suggest that firm’s size, profitability, extensiveness of foreign operation, capital intensity and leverage are the determinants of the tax avoidance of MNCs in Malaysia.

Keywords: Corporate Tax Avoidance, Effective Tax Rate, Multinational Corporations, Malaysia.

INTRODUCTION

Multinational corporations (MNCs) are seen as having better opportunities to avoid income tax and therefore, they are often associated with the tax avoidance activities. MNCs that engage in tax avoidance will employ aggressive tax planning techniques such as exploiting any loopholes in the tax legislation to gain tax advantage from the mismatch between the country’s tax rules in order to minimise their tax burden and subsequently, avoid from paying their fair share of taxes [4]. This is achieved by locating their business operations in a lower tax jurisdictions, shifting income to low-tax jurisdictions, exploiting differences in the tax rules of different countries and also, taking advantage of the tax incentives provided by host countries [22]. Previous studies indicated that MNCs have greater chances to avoid taxes on the cross-border investments as compared to strictly domestic investments and thus, resulting in the differences between the effective tax rates (ETRs) of the MNCs and domestic-only companies [1, 10]. Furthermore, the reports on the tax avoidance activities by the MNCs such as Google, Apple, Starbuck Coffee, eBay and other highly reputable MNCs have triggered intense public discussions at the international level. Those MNCs are reported to drastically reduce their tax burden on worldwide income by engaging tax avoidance method that revolves around the shifting of income from a higher tax country to a lower or no tax country [16]. As a result, the issue has been brought up to the top of the international policy agenda particularly in the G201 countries as well as the Organisation for Economic Co-operation and Development (OECD). The governments of developed and developing countries are working together with the OECD to address the issues under a project known as the Base Erosion Profit Shifting (BEPS).

Based on the above facts, it is crucial to investigate whether MNCs in Malaysia are also associated with the tax avoidance activities. Hence, this study is undertaken to examine the level of tax avoidance of the MNCs and the determining factors of such activities. It is important to note that tax avoidance, in this study, is identified by examining the ETRs of the MNCs. The gap between the firm’s financial accounting and the taxable incomes resulted from the tax avoidance activities is reflected in the firms’ ETRs as a proxy to the corporate tax avoidance and the firm’s actual tax burden [14].

This study contributes to the existing literature

1G20 is an international forum that brings together the world's leading industrialised and emerging economies. The group accounts for 85 per cent of world GDP and two-thirds of its population – The Telegraph Business.
in several ways. This study is hoped to contribute to the existing literature on the corporate tax avoidance in Malaysia as well as to the other developing countries because the studies on this issue are limited and largely conducted in developed countries such as in the U.S., United Kingdom, and Australia. Besides, this study utilises IRBM’s tax returns database to calculate the ETR as an empirical proxy for the tax avoidance by utilizing the actual tax payable in order to provide a robust measure on the tax avoidance strategies as compared to the measure used by re-grossing the current tax expense by the standard tax rate (STR); based on the assumption that a firm’s current tax expense is the tax liability of the particular financial period. The assumption may not true because there are differences between the current tax expense and the actual amount of the tax liability owed to the tax authority as evidenced in the studies by [5] and [8]. Lastly, the study may enhance the understanding of the firm’s ETR characteristics particularly on the effect of those ETRs’ variables by focussing only on the MNCs in Malaysia.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Tax Avoidance among MNCs

Tax avoidance is associated with the intention of a taxpayer to minimize tax by adopting tax planning mechanisms. Previous literature defines tax avoidance as the difference between the STRs and ETRs (for example in [3], [11] and [20]). The difference is due to the firms’ ability to reduce its tax burden below STR by taking advantage of the tax incentives and various tax provisions under the tax legislations.

The MNCs have global business operating models and their business operations are well structured with an integrated logistics, supply chains and functions that are centralised whether at regional or an international level. In a digital economy for example, the business activities for both products and processes are distant from their actual customers. As a result, the MNCs may be subjected to the corporate income taxes of multiple countries because their operations have cross-border business activities in various tax jurisdictions which is not necessarily in the country where the businesses are incorporated. They are subjected to taxes in many tax jurisdictions, and hence have the abilities to shift their business operations and profits to countries that have favourable tax provisions and lower STRs. Therefore, the MNCs have better opportunities and possibilities to avoid and reduce taxes and frequently associated with the tax avoidance activities. There is also a tendency that the MNCs will minimise the worldwide ETRs since the tax incentives, which lower the cost of operations in transacting in favoured or promoted industry, can be hidden within the complexity of the tax laws [17]. The MNCs are able to reduce their tax burden by taking advantages of the tax system and increase their shareholder values through the earnings per share. Therefore, the MNCs are induced to continuously avoid taxes which may implicate a lower tax collection of a particular country.

ETR as a Measure of Tax Avoidance

The main purpose of tax avoidance is to reduce or minimise the tax burden. Tax researchers try to establish inferences about a firm’s tax policy using proxies which are selected from the financial statements. This is because the firm’s tax strategies and practices are proprietary information to the company and the tax returns information is not publicly available. Hence, ETR is commonly used by the researchers as a proxy of the tax avoidance [3, 19 and 20].

The ETR is defined as a ratio of income tax payable to pre-tax accounting income and is a measure of the average tax rate that a company is taxed on its pre-tax profits [12]. The ETR measurement is vital for the policymakers all over the world to assess the consequences of a country’s tax policy on the corporate business. In addition, the ETR is also a key measurement in the past’s academic researches to study the tax policies in certain countries.

The Determinants of ETRs

The variability of ETR is influenced by various factors such as the firm’s size, capital structure, firm’s performance, investment in fixed assets and inventory. The previous studies suggested that ETR may also be influenced by other variables such as leverage, capital intensity, sector effect and tax domicile.

The association between ETRs and the size of the firm can be established on two opposing views, namely, the political cost theory [16, 22] and political power theory [3, 12, 19]. Some studies documented that the MNCs would lower their tax burden because of their larger size. The MNCs are considered as large business corporations in terms of assets or turnover and have the economies of scale to engage in the tax planning strategies and thus, giving them better opportunities to pay lesser or even avoid income
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taxes. As such, large firms particularly the MNCs are able to avoid paying higher income taxes by using variety of tax avoidance schemes such as transfer pricing for inter-company transactions, financing or debts arrangements, tax-advantaged leasing and, as well as the complex hybrid entities in order to take advantage of any tax loopholes [17]. Based on the literature reviews, the relation between ETRs and firm’s size is hypothesized as \( H_1 \):

There is a significant relationship between firm size and ETR.

Profitable firms are efficient in applying tax deductions, tax credits, and tax exemptions as compared to less profitable firms. As a result, profitable firms have greater book-tax differences and thus have lower ETRs. The negative relationship between ETRs and pre-tax income is because firms with higher income after tax have more incentives and the ability to allocate resources for tax planning and to engage more in tax strategies [18]. Based on the literature review, the hypothesis is stated as \( H_2 \):

There is a significant negative relationship between pre-tax profit and ETR.

The study by [21] suggested that companies with extensive foreign operations have better avenues to lower their ETRs. Those companies are capable to avoid taxes by locating their business operations in a lower tax jurisdiction; shifting income from high-tax jurisdictions to lower tax jurisdictions; taking advantage of tax benefits agreements with the host countries and exploiting differences of the tax legislation between countries. Therefore, it is expected that companies with extensive foreign activity will take advantage of tax minimisation strategies in more aggressively manner as compared to their counterparts with lesser extensive foreign activity companies thus report lower ETRs. This leads to the hypothesis stated as \( H_3 \): There is a significant negative relationship between extensive foreign operation and ETR. The capital intensity hypothesis is that the firms that have substantial investment in capital are expected to gain tax savings and thus, have a lower ETR. Previous studies suggested firms that have huge investment in depreciable assets can minimize tax liabilities by utilising higher investment tax credits (ITC) as well as accelerated capital allowance thus reporting lower ETRs [11]. However, there are studies that provide support on the inverse relationship between ETR and capital intensity that reported firms with heavy capital concentration (highly capitalised) pay higher income tax thus reported higher ETRs [6 and 20]. This suggests the following hypothesis as \( H_4 \): There is a significant relationship between capital intensity and ETR. Previous studies provide an evidence on the negative relationship between ETRs and the level of leverage due to the treatment on the interest expense in reducing computing taxable income [11]. The inverse relationship between leverage and ETR is because of the tax shield theory that was introduced in the study by Modigliani and Miller (1963), as cited in the study by [21]. This is due to a tax deduction of having higher interest tax shield of debt financing as highly leveraged companies have a higher interest tax shield which consequently, reduces the ETR [3]. Therefore, it is expected that MNCs with higher levels of leverage will have higher engagements in the tax avoidance activities and will report lower ETRs. This suggests the following hypothesis stated as \( H_5 \):

There is a significant negative relationship between leverage and ETR.

**Methodology**

For the purpose of this study, 1,187 MNCs which are categorized as high risk (in respect of transfer pricing issues) were selected. In line with the sample selection procedure, data are filtered by only accepting ETR in between 100% and -100% (-100% < ETR < 100%). The final sample comprises of 830 tax entity observations is summarised in Table 1. Each sample of tax entity, the following information is extracted and computed: tax payable, total sales, total assets, pre-tax income, debt, equity, fixed assets, foreign sales or purchases, ETR, firm’s size, profitability, leverage, capital intensity, and foreign activity.

**Table 1. Summary of Sample Selection Procedure**

<table>
<thead>
<tr>
<th>No. of taxpayers that are categorized as high risk</th>
<th>1,187</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less:</td>
<td></td>
</tr>
<tr>
<td>Taxpayers with incomplete or missing data</td>
<td>19</td>
</tr>
<tr>
<td>Taxpayers in financial sector</td>
<td>14</td>
</tr>
<tr>
<td>Taxpayers with zero tax payable</td>
<td>173</td>
</tr>
<tr>
<td>Taxpayers with negative ETR</td>
<td>93</td>
</tr>
<tr>
<td>Taxpayers with ETR of non-negative equal or exceed one</td>
<td>58</td>
</tr>
<tr>
<td>Number of taxpayers – years available for ETR analysis</td>
<td>830</td>
</tr>
</tbody>
</table>

Based on the hypotheses, the research model is stated as follows:

\[
ETR = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{PTI} + \beta_3 \text{FO} + \beta_4 \text{CAPINT} + \beta_5 \text{LEV} + \epsilon
\]
The dependent variable is the corporate ETR which is a proxy to the tax avoidance. The independent variables are firm’s size (SIZE), profitability (PTI), foreign operation (FO), capital intensity (CAPINT) and leverage (LEV). Detailed explanation on the variable definition is set out in Table 2.

Table 2. Measurement and Definition of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definitions</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>Effective tax rate</td>
<td>Ratio of tax payable to pre-tax income</td>
</tr>
<tr>
<td>SIZE</td>
<td>Firm size</td>
<td>Natural log of total assets</td>
</tr>
<tr>
<td>PTI</td>
<td>Profitability</td>
<td>Natural log of pre-tax income (PTI)</td>
</tr>
<tr>
<td>FO</td>
<td>Foreign operation</td>
<td>Ratio of total foreign sales / purchases to total sales</td>
</tr>
<tr>
<td>CAPINT</td>
<td>Capital intensity</td>
<td>Ratio of tangible fixed assets divided by total assets</td>
</tr>
<tr>
<td>LEV</td>
<td>Leverage</td>
<td>Ratio total debts divided by total assets</td>
</tr>
</tbody>
</table>

Findings and Discussions

The results suggest that the ETRs for MNCs in Malaysia are lower than the STR with mean ETR of 21.4% as compared to STR of 25% in year 2015. This figure denotes that the MNCs in Malaysia pay 3.6% lower tax as compared to STR in year 2015. T-test result indicates that difference between ETR and STR is significant with value of 6.921 at 99% confidence level, as shown in Table 3.

Table 3. One Sample Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>T-Test</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>21.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STR</td>
<td>25</td>
<td>6.921</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

***Significant at 99% Confidence level

Therefore, this finding provides the answer for the first research objective and thus, provides support on the existence of tax avoidance activities among MNCs in Malaysia. The results of the regression analysis are presented in Table 4. The adjusted R² value of 0.217 indicates that 21.7% of the variation in ETR can be explained by the independent variables. The magnitude of the impact of the independent variables is within the range of the results reported in the previous studies, for example the adjusted R² value within the range of 13.1% to 16.1% in [2] and 11.1% to 16.3% in [15]. However, there are studies that report better results for example the value of adjusted R² more than 40% in [13].

The findings from the regression analysis reveal that all five variables are significantly associated with tax avoidance activity. In particular, the results support H1, H2, H3, H4, and H5: firm’s size (0.029), profitability (-0.079), foreign operation (-0.061), capital intensity (0.005) and leverage (-0.156) as factors influencing the corporate tax avoidance.

Table 4. Regression Results of the Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td><strong>0.587</strong></td>
<td>7.777</td>
</tr>
<tr>
<td>Ln10SIZE</td>
<td><strong>0.029</strong></td>
<td>2.031</td>
</tr>
<tr>
<td>Ln10PTI</td>
<td><strong>0.079</strong></td>
<td>-6.577</td>
</tr>
<tr>
<td>FOROPER</td>
<td><strong>0.061</strong></td>
<td>-3.833</td>
</tr>
<tr>
<td>CAPINT</td>
<td><strong>0.005</strong></td>
<td>1.360</td>
</tr>
<tr>
<td>LEV</td>
<td><strong>0.156</strong></td>
<td>-5.360</td>
</tr>
</tbody>
</table>

Observations: 830
R²: 0.227
Adjusted R²: 0.217

*Significant at the 90% confidence level;
**Significant at the 95% confidence level;
*** Significant at the 99% confidence level

A positive relationship between firm’s size and ETR denotes larger MNCs pay higher taxes and thus, less associated with the tax avoidance activity. The relationship is consistent with prior researches, thus concludes larger MNCs face political costs which increase their ETRs. The finding supports the political cost theory where the larger companies are supervised and controlled by the government and the public so that the large companies pay more taxes [7, 14, 16, and 22]. Meanwhile, a negative relationship between profitability and ETR denotes that highly profitable MNCs will pay lesser taxes and thus, have lower ETRs.

Therefore, the study supports the tax shield or tax strategies theory in which highly profitable companies have more incentives and resources to engage in tax avoidance strategies and reports lower ETR. The results supports the assertion that the MNCs have lower ETR by utilizing tax deductions and credits efficiently as compared to less profitable firms, resulting in greater book-tax differences [7, 9, 17 and 21]. In addition, MNCs in Malaysia have the opportunities to reduce their tax burden with a wide range of incentives thus able to engage with effective tax planning. This is because MNCs with greater pre-tax income have more incentives and resources to engage in effective tax planning to reduce their tax liabilities which will result in lower ETRs. Besides, profitable MNCs are able to utilise efficiently tax deductions such as the double deductions in terms of research and development expenditure, promotion of export, brand promotion activity, freight charges and employee training programs.
as well as tax credits and exemptions, as compared to less profitable companies. Similarly, a negative relationship between foreign operation and ETR also implies that MNCs with higher ratio of foreign operation in terms of sales, purchases or other payment to (from) foreign affiliates will have lower tax burden and thus report lower ETRs. The finding is consistent with the previous studies, for example the studies by [5], [7] and [17]. MNCs with extensive foreign operations are able to reduce their tax burden through tax planning activities because they have better economies of scale and scope to tax planning that is by exploiting the differences in the tax rules of different countries as well as taking advantage of the tax incentives provided by host countries. The MNCs have better opportunities to engage in the tax avoidance activities are due to their nature of business operations which involve cross-border transactions. Besides, MNCs with extensive foreign activities have higher risks associated with the tax avoidance in transfer pricing.

A positive relationship between ETR and capital intensity denotes that highly capital intensive MNCs face higher ETRs which means the MNCs in Malaysia do not utilise tax saving gained from the write-off cost of tangible assets over periods much shorter than their economic lives. This result is consistent with the findings in [6], [7] and [20]. Also, the result provides strong evidence that leverage has negative relationship with the tax avoidance. The result is consistent with previous studies for example [12], [13] and [21]. The finding also supports the assertion on the tax avoidance activities of the MNCs by utilising thin capitalisation. Moreover, the result suggests MNCs with higher leverage ratio are associated with the tax avoidance activity because they gain benefit from tax deduction of having higher interest tax shield of debt financing. Thus, highly leveraged MNCs have higher interest tax shield which reduces the ETR. Tax avoidance activity involves interest tax shield is a concern by many tax jurisdictions as most countries have introduced thin capitalisation rules to curb tax avoidance activities involving interest deductions and other financial payments.

**CONCLUSIONS**

This study provides evidence on the existence of the corporate tax avoidance among the MNCs in Malaysia by examining their ETRs. Besides, this study also reveals that firm size, profitability, foreign operation, capital intensity and leverage are significant factors influencing the corporate tax avoidance of the MNCs. The findings would provide a valuable insight and empirical evidence for the Malaysian tax authority, the IRBM in addressing the issue of aggressive tax planning among the MNCs. The selection criteria of audit cases by the tax authority can be based on the level of ETRs as suggested in the study. Currently, the tax authority does not select highly profitable companies for audit because the selection criteria are usually for companies which report profit below the industry average.

Therefore, as suggested in this study, high profitability should be also be considered as a criteria besides ETR, in a risk assessment for case selection particularly for MNCs that enjoy variety of tax incentives. On the other hand, the IRBM should not solely rely on the tax return database submitted by the MNCs but can further intensity the enforcement activities by focusing on MNCs which have lower ETRs. Moreover, the tax enforcement can be implemented efficiently by using analytics as described in this study which could reduce the administrative and compliance costs of the tax authority.

**REFERENCES**


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