ABSTRACT

Transfer pricing has become one of the main issues in the Malaysian tax perspectives since the pioneer legal case has proven to attract more scrutiny and supervision of the related authorities. In 2012, the comprehensive act by the Inland Revenue board to replace the Transfer Pricing Guidelines 2007 is believed to curb any manipulation and malpractice among related party transactions. This study aims to examine the relationships between three risk indicators of transfer pricing and the probability of transfer mispricing practices among Public Listed Companies (PLCs) in Malaysia. Using a micro backward-looking approach for seventy companies consisting of 350 firm-years provides evidence that the number of tax haven subsidiaries and gross profit margin affected the extent of Effective Tax Rate yielded. These findings show that transfer pricing practices among PLCs may amount to a serious tax evasion scheme if the practices are not properly controlled and monitored by the authorities.

Keywords: Transfer pricing, tax evasion, tax planning, related party transactions
INTRODUCTION

Issues on financial crimes are vastly discussed as organizations from time to time tend to discover new ways in manipulating their financial data with the ultimate aim of enjoying higher return, seeking financial assistance, maintaining consistent profitability trends or even an attempt to reduce their tax liabilities. Reduction in tax liabilities through tax evasion favours most of the attention since tax revenue is one of the main sources of income. For example, the Christian Aid Report (2010) reported that transfer mispricing and false invoicing are two major forms of tax evasion involving multinational corporations (MNC) that resulted in depriving tax revenues of developing countries amounting to USD160 billion every year.

Corporate tax revenue contributes around 30% of total tax revenue collected by the US government in 2013 amounting to USD350 billion (Zucman, 2014). To date, corporate tax planning is the main focus of the public as they are concern about the sources of the tax revenue and fair contribution from the relevant entities (PWC Tax Strategy and Corporate Reputation, 2013). According to Gravelle (2015), tax avoidance is considered to be a legal reduction from the tax perspectives while tax evasion is a reduction scheme that is illegitimate.

In Malaysia, there is a provision in the Income Tax Act (ITA) 1967 regarding wilful evasion of tax covered under Section 114 which is further explained in the Public Ruling No.8/2000. The government views tax fraud as a serious offence whereby the punishment includes imprisonment as well as imposition of fine on the perpetrators (Income Tax Act 1967, 2014). In 2012, Inland Revenue Board of Malaysia (IRBM) solved nearly RM1.9 billion worth of tax evasion cases (New Sabah Times, 2013). Furthermore, from the Bank Negara Malaysia (BNM) website, there is a significant number of cases being investigated which also involves tax fraud cases among companies in Malaysia (Bank Negara Malaysia, 2015).

Transfer pricing refers to intercompany pricing arrangements for the transfer of goods, services, and intangibles. A country would suffer huge loss if transfer pricing practices are not properly controlled and monitored as a firm can divert taxable income to its foreign subsidiaries to minimise its overall tax burden and increase the parent’s overall earnings (Olibe &
Rezaee, 2008). On the other hand, transfer mispricing or known as transfer price manipulation (TPM) is a strategic setting of transfer price above or below opportunity cost so as to avoid government controls and/or arbitrage differences in regulations between countries (Horst, 1971; Eden 1998 & Eden 2003). Global Financial Integrity (GFI), a Washington-based research and advisory organization estimated that the amount of tax revenue loss worldwide from transfer mispricing is at several hundred billion dollars annually (Tax Justice Network USA, 2015).

This paper integrates three out of nine indicators outlined by the Organization for Economic Co-operation and Development (OECD) guidelines for dealing effectively with challenges of transfer pricing (OECD, 2012). The three selected indicators are (1) significant transactions with related parties in low tax jurisdictions, (2) loss-making, and (3) effective tax rates. Besides, tax planning theory is the theory used to support the selection of the three variables. Hence, this study aims to examine the relationships between three risk indicators of transfer pricing and the probability of transfer mispricing practices among Public Listed Companies (PLCs).

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Transfer Pricing

Transfer pricing is the price charged for transactions between companies that are associated, such as trade between a parent company and its foreign subsidiary or between two affiliates (Eden, 2009). According to Tax Research UK (2010), approximately 70% of the world trade nowadays involve related parties transaction. The arm’s length price is on top of discussion as the price is set based on discretionary estimation without considering the arm’s length (AL) principle and subsequently evolves into “transfer mispricing”. The AL price can be found in Article 9 of the Organization for Economic Co-operation and Development (OECD) as it governs the prices at which intra-firm transfers are set for tax purposes (Keuschnigg & Devereux, 2013).
The GFI report estimated that 80% of the unrecorded financial outflows in Malaysia amounting to USD$227.1 billion during 2001-2010 were due to trade mispricing and listed Malaysia in the top ten ranking for the most illicit financial flow coming out of the country compared with other developing countries such as China, Russia, India, and Mexico (Kar & Freitas, 2012). The pioneer legal case of alleged transfer pricing manipulation in Malaysia involved MM Sdn Bhd. However, the Transfer Pricing Guidelines 2012 issued by IRBM had no lawful impact on the case as it was merely a guideline for companies to follow (Quantera Global, 2013).

The IRBM had come up with a new Transfer Pricing Guidelines in 2012. The guidelines serve as a medium to further define the transfer pricing aspects as per outlined in the Section 140A of the Income Tax Act (ITA) 1967. Also, the Organization for Economic Co-operation and Development (OECD) guidelines for dealing effectively with transfer pricing was also issued in 2012. It contains recommendations on mitigating transfer pricing in an effective manner.

**Tax Planning**

Tax planning deals with the organization of a taxpayer’s affair to have effects on the minimum tax liability within the law which is a legal approach that deals with the choice of a business vehicle and the use of options or tax shelters (Kasipillai, 2010). According to Pniowsky (2010), tax planning is the process of structuring one’s affairs to defer, reduce, or even eliminate the amount of tax payable. Notably, there is a need for MNC to properly manage their tax bills through available incentives and rebates offered by the countries they reside in as they face various types of taxes in return. However, further complication arises by the additional cost of compliance the company might face to comply with the different administrative requirements that may differ from one country to another (OECD, 2010).

In Malaysia, tax planning is legal as long as it is executed through proper means but still vulnerable for manipulation. The government of Malaysia has their way in boosting foreign direct investment to erect the business locally. The implementation of several tax incentive schemes such as Pioneer Status (PS), Investment Tax Allowance (ITA), and Reinvestment
Allowance (RA) is considered as the most prominent incentive offered to the foreign businesses (Hoe, 2011). The tax planning theory is used to complement the study as such planning is one type of subjective initiatives taken by a company in reducing their tax.

The nine criteria provided by OECD (2012) in dealing effectively with the challenges of transfer pricing are as follows: (1) Significant transactions with related parties in low tax jurisdictions; (2) Transfers of intangibles to related parties; (3) Business restructurings; (4) Specific types of payments; (5) Loss making; (6) Poor results; (7) Effective Tax Rates; (8) Poor/Non-existent documentation; and (9) Excessive debt. However, the study only focused on three (3) of the risk indicators which are low tax jurisdictions (ordinary subsidiaries and tax haven subsidiaries), loss making, and effective tax rates due to the constraints in gathering other risk indicators. The three risk indicators selected are in conjunction with the tax planning theory since they might become a motivation for companies to manage their tax bill.

**Subsidiaries and Tax Planning**

Subsidiary is a company controlled by a holding or parent company (Oxford Dictionary, 2015) and it includes direct subsidiary, indirect subsidiary, joint venture companies, as well as, associate companies. On the other hand, two companies are associated companies respectively to each other if one of the companies has shares or participates directly or indirectly in the management, control, or capital of the other company or both companies (IRBM, 2012).

MNC usually has businesses that comprise of multiple locations in different regions. Due to the geographical constraint to monitor the businesses, MNC tends to construct subsidiaries under their belt to undertake their daily chores. They have displayed an emergent trend to expand through establishing subsidiaries, either through buying the already-existing or creating new companies (Eisenberg, 1971). In the context of transfer pricing practice, subsidiaries refer to the related-party transaction with the aim of providing tax advantages (Young, 2011).

Subsidiary is selected as one of the independent variables since it might be utilized by the parent company to minimize their tax liability.
According to Hong, Pak, and Pak (2014), apart from gaining operational efficiency, multinational companies are also known to use vertical integration for better tax planning via trades with their own subsidiaries situated in dissimilar counties. Hong, Pak, and Pak’s (2014) affirmation is also based on the mutual findings as per Green (1986) and Drucker (2010).

**Tax Haven Subsidiaries and Tax Planning**

Tax haven features are defined based on the low or no taxes, insufficient effective information change and transparency, bank secrecy, and requires little or no substantial economic activity for an entity to obtain legal status (Gravelle, 2015). A tax haven subsidiary is a subsidiary that meets the stipulated requirements of tax haven. The existence of tax haven is noticeable in developing countries as they induce foreign businesses through low tax rates on various business activities (Kasipillai, 2010). Besides developing countries, there are other countries recognized as tax haven countries by the MNCs whereby they systematically charge different prices for internal transactions or report higher profits in low-tax countries (Egger & Seidel, 2013). However, there is a need to regularly review the tax haven operation and its rates in preventing illegal activities in the global financial markets particularly on the inappropriate activities (Christensen, 2011). Thus, tax haven subsidiaries are tested to provide a more thorough analysis, aside from just the normal subsidiaries.

**Gross Profit Margin and Tax Planning**

According to the OECD guidelines, the firm’s gross income is one of the items closely related to transfer pricing issue as it forms part of the cost of sales. The gross income is to complement the consecutive loss aspect which may result in aggressive tax planning. The move is also parallel with the IRBM Guidelines whereby the scope of examination of a firm’s transfer pricing practices apply wholly to a business with gross income exceeding RM25 million and the total amount of related party transactions exceeding RM15 million (IRBM, 2012). Thus, the selection of the gross profit margin is based on the OECD’s risk indicators that emphasize on the loss-making firms (where gross profit value is the method to gauge the profit or loss of a company), as well as the IRBM Guidelines that enforce the transfer pricing guidelines to companies which meet the threshold of more than RM15 million gross profit.
Effective Tax Rates and Tax Planning

Effective Tax Rate (ETR) is the actual amount paid by the firm whereby Statutory Tax Rate (STR) is the amount of tax subject to the aggregate for the current year. The tax gap is the difference between ETR and STR which ETR shall not differ much from the stipulated STR. The variability of the ETR among PLCs from year to year shall raise a considerable concern as it happens to be that a firm double their tax bill and on other occasions they pay less or do not pay anything. Indeed, the amount paid sometimes does not reflect the tax liability a company is supposed to remit.

The transfer pricing method is greatly used in reducing taxes, reducing tariffs, and avoiding exchange controls (Kasipillai, 2010). Olibe and Rezaee (2008) used the US effective tax rate (ETRUS) to examine the cross-sectional relation between the values of cross-border intra-firm transfers (CITs). The other variables tested are Return on Investment (ROI) and Global Effective Tax Rate (ETRGL). The result indicates that both ETRUS and ROI increase whereas the ETRGL decreases with the extent of CITs. This proposes that firms earn income on average, in jurisdictions with tax rates greater than the USA, by diverting income from overseas as tax-saving action. In this study, ETR was used as the transfer pricing indicators as there are limited studies that applied ETR to measure transfer pricing practices.

Perceived Transfer Mispricing Practices and Tax Planning

Transfer pricing practices are carried out to meet a company’s certain objectives and evolve into a negative connotation as “transfer mispricing”. The impact of transfer mispricing is that firms escape from paying higher tax and the tax revenue for a country will be lesser. Clausing (2003) investigated the impact of tax influences on intra-firm trade which proved a significant relationship between countries tax rates and the prices of related party transaction as the vibrant economic environment provides them with the tax-related incentives and exemption.

Meanwhile, Sikka, and Willmott (2010) argued that firms consider transfer pricing is still an area where detection from the regulatory bodies is low and deemed as an acceptable business risk. Similarly, Christensen (2011) also argued that firms use tax haven countries to exploit legislative gaps and loose regulation as it provides an open gateway to do business.
Uyanik (2010) highlighted that the revenue gain from ending deferral estimated to be around USD$11 billion. It could be an overstatement because some of the profits abroad accrue to real investments in countries that have lower tax rates than the United States and thus do not reflect artificial shifting. It could also be an understatement because it does not reflect the tax that could be collected by the United States rather than foreign jurisdictions on profits shifted to low-tax countries. Hong, Pak, and Pak (2014) also concur with Sikka and Willmott (2010). They suggested that multinational corporations tend to shift their income to both developed and developing countries through the transfer pricing channel to avoid taxes and other additional charges levied on them.

### Hypotheses Development

**Relationship between Subsidiaries and Tax Haven Subsidiaries with Effective Tax Rate (ETR)**

Related party transaction (RPT) is one of the approaches in assessing transfer pricing practices. However, ETR is used as the basis to measure transfer pricing practices among PLCs in Malaysia due to some constraints to acquire data regarding RPT. Variability of ETR yielded by companies should be complemented with the explanation such as lower than 10% ETR might be one scheme related to transfer pricing (Gupta & Newberry, 1997). OECD (2012) highlighted that significant transaction with related parties in low tax jurisdictions is one of the features that may suggest transfer pricing risk. Therefore, the subsidiaries held by the PLCs are categorised between normal subsidiaries as well as tax haven subsidiaries. The measurement is as per unit basis, as the number of subsidiaries or tax haven subsidiaries that PLCs possessed will be recorded and analyzed to seek whether these variables affect the PLC’s ETR. The higher the number of subsidiaries or tax haven subsidiaries a PLC possessed, the lesser the ETR yielded by them. The result will be referring to a probability of transfer pricing manipulation. Therefore,

\[ H_1 : \text{There is a significant negative relationship between the number of subsidiaries a PLC possessed, and the extent of ETR yielded.} \]

\[ H_2 : \text{There is a significant negative relationship between the number of tax haven subsidiaries a PLC possessed, and the extent of ETR yielded.} \]
Relationship between Gross Profit Margin and Effective Tax Rate (ETR)

OECD (2012) suggested gross profit as another feature to handle transfer pricing risk. The variable is developed using the gross profit margin to determine loss-making firms as the actual feature suggested by the governing body is loss making or yielding poor results. The usage of gross profit is due to the scope of IRBM’s Transfer Pricing Guidelines 2012 that covers firms with gross profit exceeding RM25 million. The effect should be the higher the amount of gross profit margin of a PLC, the higher the ETR yielded by them. This is possible because a general understanding of tax is that more profit will lead to more tax to be paid. Therefore,

$$H_3: \text{ There is a significant positive relationship between gross profit margin incurred by a PLC and the extent of ETR yielded.}$$

METHODOLOGY

Sampling Technique

The population of the study consisted of 70 PLCs in Malaysia. As per OECD’s guidelines, MNCs were selected within the same industry, that is, 10 companies for each industry in order to ease the comparability analysis. Thus, 7 industries consisting of 350 firm-years for the year 2009 to 2013 were selected.

The least requirement of the PLCs selected that fulfil the risk indicators for transfer pricing practices is it has subsidiary companies. The samples selected should also fulfil the condition of having gross profit exceeding RM25 million. This is to align with IRBM’s Transfer Pricing Guidelines (2012) whereby the focus is on the PLCs that meet the thresholds in order for the investigation to be initiated. The guideline in fact covers companies that exceed RM25 millions of gross profit alongside more than RM15 millions of related-party transaction.
Measurement of Variables

ETR is the dependent variable that was yielded for the five years period, as Olibe and Rezaee (2008) had used ETRUS. This is consistent with Jacob (1996) and Mills and Newberry’s (2003) findings. The ETR was derived by dividing the tax expense (or tax income) with the profit before tax (pre-tax income). According to Gupta and Newberry (1997), ETR is considered as normal if it is around 10% to 25%, while it is considered as low if it is less than 10%.

The first independent variable is the number of subsidiaries a PLC possessed which include local and foreign subsidiaries. Tax haven subsidiaries possessed by a PLC would be the second independent variable that is based on the criteria of OECD’s List of Tax Haven Countries 2000 which was updated in 2006. Both variables were only based on the respective PLCs Annual Report in 2013 to depict the landscape for five consecutive years as Bursa Malaysia Disclosure Guide 2011 required a comprehensive disclosure with regards to the subsidiaries and related-party transactions of PLCs only in 2011.

Moreover, the PLCs pattern of having “continuous losses”, that is for two or more than two years would become the third independent variable. This is because some firms may plan to suffer losses to avoid paying taxes. The data were gathered from the gross profit margin or gross loss sustained by the PLCs which the amounts were available from Thomson DataStream 2015. Thus, it is a vital area to know whether it has any relationship with transfer pricing practices if the company’s gross profit margin increases dramatically which most probably erroneous action may take place or it may as well lead to fraud (Albrecht, Albrecht, Albrecht & Zimbelman, 2009). The equation is as per below:-

\[
ETR = \beta_0 + \beta_1 \text{NOS} + \beta_2 \text{THS} + \beta_3 \text{GPM} + \epsilon
\]

Where,

ETR = Effective Tax Rate
NOS = Number of Subsidiaries
THS = Tax Haven Subsidiaries
GPM = Gross Profit Margin
\(\epsilon\) = Error
Table 1: Definition and Measurement of Variables

<table>
<thead>
<tr>
<th>Variable Acronym</th>
<th>Definition</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS</td>
<td>Number of Subsidiaries</td>
<td>The number of subsidiaries (local and foreign) a PLC possessed.</td>
</tr>
<tr>
<td>THS</td>
<td>Tax Haven Subsidiaries</td>
<td>The number of tax haven countries a PLC possessed.</td>
</tr>
<tr>
<td>GPM</td>
<td>Gross Profit Margin</td>
<td>Dividing gross profit by net sales</td>
</tr>
<tr>
<td>ETR</td>
<td>Effective Tax Rates</td>
<td>Dividing the tax expense (or tax income) with the profit before tax (pre-tax income).</td>
</tr>
</tbody>
</table>

FINDINGS AND ANALYSIS

Descriptive Analysis

Table 2 and 3 present the descriptive statistics on dependent and independent variable respectively over the period of five years.

Table 2: Descriptive Statistic for Dependent Variable

<table>
<thead>
<tr>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>350</td>
<td>281.7678</td>
<td>-111.4841</td>
<td>170.2837</td>
<td>20.392530</td>
</tr>
</tbody>
</table>

It shows that on average, ETR stands at 20.39%, which means that most of the PLC’s ETR are within the normal range as suggested by Gupta and Newberry (1997).

Table 3: Descriptive Statistic for Independent Variables

<table>
<thead>
<tr>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS</td>
<td>179</td>
<td>2</td>
<td>179</td>
<td>27.46</td>
</tr>
<tr>
<td>THS</td>
<td>32</td>
<td>0</td>
<td>32</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Based on the result above, the mean value for the number of subsidiaries is high, approximately 27 subsidiaries possessed by a firm, within the range of 2 to 179. Meanwhile, mean value of 1.19 for the number of tax haven subsidiaries is reasonably high as one PLC is subject to have at least one tax
haven subsidiary. This is not an issue as utilization of tax haven countries is legal even though it might be used as a vehicle to reduce tax and acquire lower tax liability. While for gross profit margin, it indicates generation of 28.79% gross profit from the sales. This may suggest strong profitability indicators as the majority of the PLCs are producing good profits in average even though there are PLCs which suffer huge losses.

Table 4: Proportion of ETR Across 5-years Period

<table>
<thead>
<tr>
<th>ETR</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (&lt;10%)</td>
<td>14</td>
<td>18</td>
<td>18</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Normal (10%-25%)</td>
<td>25</td>
<td>27</td>
<td>26</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>High (&gt;25%)</td>
<td>31</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Total PLCs</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
</tbody>
</table>

Table 4 represents the number of PLCs having low ETR for each year is lesser as compared to normal and high ETR groups.

Table 5: Proportion of Low ETR Across 5-years Period

<table>
<thead>
<tr>
<th>Low ETR (&lt;10%)</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Trading/Services</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Construction</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Properties</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Plantation</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Technology</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Total PLCs</td>
<td>14</td>
<td>18</td>
<td>18</td>
<td>14</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 5 depicts the proportion of low ETR across 5-year period divided by seven different industries. All industries generated lower level of ETR except for technology-based industry as out of ten companies, there are more than five companies that have low ETR rates for each consecutive year. This may be due to lots of trading from outside countries to procure the technological-based items or equipment. This study focused only on the low ETR yielded since this indicates firm paid less tax as compared to
the actual amount which should trigger tax authority alert, as the company may do a proper tax planning or might as well a tax evasion scheme.

Results Interpretation

Table 6: Details of R Square

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td>.324a</td>
<td>.098</td>
<td>.9370126</td>
<td>.105</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1  df2 Sig. F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Change Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durbin-Watson</td>
</tr>
<tr>
<td>Change Statistics</td>
<td></td>
<td></td>
<td></td>
<td>.105  13.573 3 146  .000  1.723</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Normal Score of GPM using Van der Waerden’s Formula, Normal Score of NOS using Van der Waerden’s Formula, Normal Score of THS using Van der Waerden’s Formula.
b. Dependent Variable: Normal Score of ETR using Van der Waerden’s Formula.

Based on Table 6, R-square is only 10.5% which means the contribution is around 10% to the overall effect of transfer pricing practices of PLCs in Malaysia. Meanwhile, Durbin-Watson score is 1.723 that is nearer to 2 which indicates positive autocorrelation among the samples as per suggested by Pallant (2010) since The Durbin-Watson statistic is always between 0 and 4.

Table 7: Analysis of Variance (ANOVA) Table

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>35.751</td>
<td>3</td>
<td>11.917</td>
<td>13.573</td>
</tr>
<tr>
<td>Residual</td>
<td>303.785</td>
<td>346</td>
<td>.878</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>339.536</td>
<td>349</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Normal Score of ETR using Van der Waerden’s Formula.
b. Predictors: (Constant), Normal Score of GPM using Van der Waerden’s Formula, Normal Score of NOS using Van der Waerden’s Formula, Normal Score of THS using Van der Waerden’s Formula.

From Table 7 above, the F-value is 13.573 which is significant at p < .001. The F-value or F-ratio is the variance explained relative to error in the model (Field, 2009). The F-critical is [Df (3,346) =2.37], thus F-value is larger than the F-critical so it rejects the null hypothesis. Hence, there is evidence that at least one independent variable affects the extent of ETR yielded.
Table 8: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.017</td>
<td>.051</td>
<td>.332</td>
<td>.740</td>
</tr>
<tr>
<td>Normal Score of NOS using Van der Waerden's Formula</td>
<td>.368</td>
<td>.064</td>
<td>.365</td>
<td>5.737</td>
</tr>
<tr>
<td>Normal Score of THS using Van der Waerden's Formula</td>
<td>-.231</td>
<td>.088</td>
<td>-.167</td>
<td>-2.620</td>
</tr>
<tr>
<td>Normal Score of GPM using Van der Waerden's</td>
<td>.145</td>
<td>.051</td>
<td>.145</td>
<td>2.836</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Normal Score of ETR using Van der Waerden’s Formula
*Significant at 5% level (1-tailed test);

The regression equation is read from the above model as per below:

\[ ETR = \beta_0 + \beta_1 \text{NOS} + \beta_2 \text{THS} + \beta_3 \text{GPM} + \epsilon \]
\[ ETR = 0.017 + 0.368 (\text{NOS}) - 0.231 (\text{THS}) + 0.145 (\text{GPM}) + \epsilon \]

Table 8 shows the regression coefficient; \( \beta_0 \) is valued at 0.017. This means that when there is no factor that affects the extent of ETR yielded by PLCs (when \( X = 0 \)), the model predicts that ETR yielded will be 1.7%, before taking into account the effect which comes from a number of subsidiaries, tax haven subsidiaries, as well as, gross profit margin.

RESULTS

H\(_1\) posits a significant negative relationship between the number of subsidiaries and the extent of ETR yielded. This explains that high number of subsidiaries will result in lower ETR. The number of subsidiaries of \( \beta_1 = 0.368 \), where ETR increases on average by 0.368\% for each additional unit increase in the number of subsidiaries, net of the effects of changes due to tax haven subsidiaries and gross profit margins. The result yields a positive relationship between number of subsidiaries and ETR. Although there is an increase in the number of subsidiaries that cause a potential increase in RPT, the RPT may not have been manipulated for tax evasion schemes and transfer mispricing practices. Thus, H\(_1\) is rejected.
H$_2$ shows a significant negative relationship between the number of tax haven subsidiaries and the extent of ETR yielded. This means that when a PLC has more tax haven subsidiaries, the extent of ETR will decrease proportionately. The number of tax haven subsidiaries of $\beta_2 = -0.231$, where ETR will decrease, on average, by 0.231%, for each additional unit increase in tax haven subsidiaries, net of the effects of changes due to number of subsidiaries and gross profit margins. Thus, the transaction may amount to plausible tax schemes if there is no proper control from the authority. Thus, H$_2$ is accepted. Therefore, the level of risk indicators of transfer pricing is high when PLCs form more tax haven subsidiaries, as they may reduce the ETR.

H$_3$ shows a significant positive relationship between gross profit margin incurred by a PLC and the extent of ETR yielded. This means that when gross profit margin incurred by a PLC is high, there is also high ETR yielded. The gross profit margin of $\beta_3 = 0.145$, where ETR will increase, on average, by 0.145%, for each additional one per cent increase in gross profit margin, net of the effects of changes due to number of subsidiaries and tax haven subsidiaries. Therefore, H$_3$ is accepted. Thus, the level of risk indicators of transfer pricing is low when PLCs generate good profits, as they also need to pay high tax.

**CONCLUSION**

This study is to examine whether number of subsidiaries, tax haven subsidiaries, and gross profit margin can contribute in predicting transfer pricing practices through the measurement of ETR yielded of those selected PLCs. The samples comprised of 70 PLCs from seven types of industries. The main criterion for the selection of these PLCs is that they should have a subsidiary, besides based the OECD Guidelines 2012 and IRBM Guideline. The period covered was based on financial data of five years, i.e., 2009 until 2013.

Based on the results obtained, tax haven subsidiaries and gross profit margin can be used to predict the transfer pricing practices by using the ETR yielded. The higher the number of tax haven subsidiaries, the less amount of ETR yielded. The same situation also applies for gross profit margin.
The higher the gross profit margin, the higher the ETR yielded as a result of sound financial performance. Therefore, these two results may indicate a plausible transfer mispricing practices.

There are two main implications from this study. First, since tax planning is a legal reduction of tax, it is still prone to be manipulated as transfer pricing is a mechanism that is carried out based on a subjective valuation. The second implication is that on the extent of the effect of tax planning procedures in lowering ETR yielded. The inability to distinguish between tax planning approach and tax avoidance technique may affect the tax planning theory as if the latter is also illegitimate and unlawful to be initiated.

From the perspective of a practitioner, transfer pricing provides a solution for an easy business interaction among subsidiaries and affiliated companies. However, the practitioner needs to be aware of the validity of the transactions between subsidiaries as the opaque and vague elements that surround the transfer pricing may open to a malpractice initiated by bigger firms to gain a fair advantage such as increasing profits alongside reducing the tax bills. The results also have significant implications for tax authorities and other related organizations where it should help these entities to tackle tax audit problems more efficiently and set the risk parameter before embarking on any investigation process by having a list of priority.

However, several limitations of the study should be noted. Firstly, this study was conducted using the financial data from PLCs and could not be extended to those private firms as the financial statements were not publicly available even though these firms are not free from transfer pricing manipulation practices. Besides, firms that do not have any subsidiary are excluded as transfer pricing requires a subsidiary to do at least a transfer price. Furthermore, the samples selected were relatively small in size as they were limited to ten PLCs from seven industries. According to Liou and Yang (2008), an extreme observation might change the result when the sample size is very small in empirical studies. Lastly, the number of ordinary subsidiaries alongside the tax haven subsidiaries a firm has is based on the 2013 Annual Report, which is due to the slight variation between the years where most of the companies are sticking to their subsidiaries without removing it from their books.
This study recommends for the risk indicators to be extended to all the nine available aspects as per stated in the OECD Guidelines 2012 to provide more robust analyzes of transfer pricing landscape. In addition, the sample size also needs to be extended to more than just seventy PLCs and cover more industries as the analysis result will be more robust. Furthermore, the extension on the data is recommended as the research was only using the 2013 annual reports as the benchmark for the information regarding those PLCs subsidiaries.

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