

TAX AVOIDANCE OVER TIME: INSIGHTS FROM THE INCENTIVISED CORPORATE TAXPAYER

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Abstract: An incentivised firm that pays low tax may not be engaging in fraudulent management, as generally assumed. However, it could have been due to tax avoidance strategies observed through reduced or lowered Effective Tax Rate (ETR) across ten years. Therefore, this research investigated the time trend of ETR over ten years and the determinants associated with the trend among firms with incentives. This paper focuses on tax avoidance strategies applied by corporate firms in Malaysia that utilised Reinvestment Allowance (RA) tax incentives. Results showed only a minimal increase of 0.2 per cent with low ETR averages of 6.47 per cent over a decade. Findings from this study on the consistent low tax sustained by firms with incentives throughout ten years could be due to tax exemption from numerous generous tax incentives and having taxpayers exploit the loopholes of the taxation system.

Keywords: Effective Tax Rates, Tax Avoidance, Reinvestment Allowance, Tax Incentive, Taxation.

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Introduction

This study provides evidence on the trend in corporate tax revenue from the application of time-trend analysis of Effective Tax Rate (ETR) amongst corporate taxpayers in Malaysia who claimed Reinvestment Allowance (RA) over a decade between 2007 and 2016. This study chose these observation periods because the Malaysian corporate STR has been found to have gradually reduced from 27 per cent to 24 per cent between 2007 and 2016, whereby these changes somehow impacted the tax revenue. Taxpayers who used RA for tax planning pay low taxes over time, determined through tax return data. Then, the study intended to examine the relationships between certain tax attributes, namely, company's profitability (ROA), the reinvestment allowance utilisation rate (RAUTI), type of corporate taxpayers (TPP), the book-tax gap (BTG) and how they associate to the trend in ETR. By nature, tax incentives erode the tax revenue within the limited time frame but with the expectation of expansion in economic growth and tax revenue (Chen, 2015). Through this notion, Chen (2015) suggested that a tax incentive program is worth implementing if it contributes to ultimate economic growth and expands the tax

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revenue. RA has been regarded as the primary tax incentive program and is recurrently used in Malaysia (Bank Negara Malaysia, 2017). Since its introduction in 1979, RA has been recommended to corporate firms to attract reinvestments and increase business developments. However, experts suggested that some firms had benefitted from the taxation system in Malaysia and only paid taxes at a minimum statutory tax rate (KPMG International, 2018). Some reasons for this include tax incentives in Malaysia being too generous. As a result, firms could exploit the incentives and discover gaps in the regulations to reduce ETR. Consequently, the revenue of the country could be affected. Although tax incentives have been implemented extensively in emerging countries (World Bank, 2018), Fuest and Riedel (2009) have asserted the impact of these incentives on certain taxation aspects, such as income shifting or tax avoidance, which are often overlooked.

This study's contribution is twofold, whereby firstly, the existing literature is further extended by investigating time trends in ETR. This research attempt to understand incentivised companies' tax affairs by providing the tax avoidance trends of Malaysian corporate taxpayers utilising the RA. This study further adds to the body of literature from the perspectives of on-time trends of ETR in a specific context, primarily through a critical discovery in this study of a slight increase by 0.2 per cent over ten years of corporate firms utilising RA. The low taxes could be the reason for these empirical findings, which could be a reflection of fiscal policies that resulted in generous tax incentives offered by the government. Secondly, this study highlights an argument by Fuest and Riedel (2009), whereby existing studies on profit shift neglect the effect of tax incentives (i.e., tax holidays, free enterprise zone and investment allowance). This action has become the primary reason for the loss of corporate tax revenue in developing countries. Hence, this study would provide some evidence for the little increase in corporate tax revenue. Based on the time trend in ETR, this study has, therefore, employed RA incentive as the primary focus in identifying the taxes that incentivised firms had contributed. This study would demonstrate that part of the corporate revenue is either tax exempted or taxable at lower rates, whereby firms that have been paying minimal tax have continued to do so in the past decade.

Literature Review

Dyrenge et al. (2017) documented that corporate ETR among corporations in the United States has decreased significantly from 1998 to 2012, establishing the argument that firms would take advantage of contradictory incentives and discriminatory systems in taxation. Finér and Ylönen (2017) further support this argument by asserting that low tax rates depend primarily on the numerous tax incentives and vague tax laws. Although the ETR of firms given incentives may be significantly below STR, they can still exploit tax incentives. Thus, there was still minimal evidence on changes in ETR after some time and tax avoidance strategies used by firms with incentives. Dyrenge et al. (2017) also recognise that multinational

US firms' decrease in ETR is related to declining foreign tax rates. Building from their findings, Drake et al. (2020) found that the domestic firm's decrease is associated with prior-year loss adjustment on valuation allowance. In addition, Thomsen and Watrin (2018) have ventured into a similar ETR time trend study by comparing the US and European countries. While these studies all examine time trends of multinational or domestic firms in the United States and Europe, to our knowledge, ours is the first to exploit the information on the Malaysian incentivised firms to examine the changes in ETRs and identify determinants of such changes from the administrative tax return. This study's primary variable of interest is the ETR among firms, defined as the ratio of tax payable to pre-tax profits. In this present research, the actual tax payable amount extracted from corporate tax return data was used to measure ETR. Based on Hanlon and Heitzman (2010), tax return data overcome unstandardised taxable income measures and provide the actual tax status of a firm. Hence, using corporate tax return data in this study enables us to measure corporate tax avoidance accurately (Rudyanto & Pirzada, 2021).

In addition, several researchers in Malaysia have found that some firms take advantage of available tax incentives by reducing the ETR through tax planning strategies (Mahenthrian & Kasipillai, 2011; Noor et al., 2008; Mohanadas et al. 2021). Nonetheless, the adoption of variables that have represented the specific tax incentives remains indefinite. Gradual phasing in the reduction of STR over the years would somehow increase the ETR. Derashid and Zhang (2003) have included the time effect for each year between 1991 and 1999 to represent a gradual reduction in corporate STR and demonstrate that the time's coefficients are positively and statistically significant to ETR. This result appears to be consistent with the long-standing industrial policy in Malaysia, whereby the government would safeguard the manufacturing sector by providing tax incentives and preferential tax treatment. However, results from past studies have also shown that the ETR of firms is lower than STR. For example, Noor et al. (2008) reported that ETR in publicly listed firms of Malaysia falls below STR. Meanwhile, Salihu et al. (2015) have found a similar outcome of firms reporting lower ETR than the prevailing STR based on observation among firms listed on the Securities Commission Malaysia (SCM) Top 100 Index. Dyreng, Hanlon, et al. (2008) argued that the annual cash effective rate would be insufficient to evaluate tax avoidance in the long term, which suggests that time would affect ETR. Within the assessment years in this present study, Malaysia reduced statutory tax rates from 27 per cent in 2007 and 26 per cent in 2008 to 25 per cent in 2015. The tax rate finally remained at 24 per cent in 2016. The decrease in tax rates was projected to influence ETR. Apart from the gradual reduction of STR, there are no significant changes or amendments to RA's qualifying characteristics throughout the observation years. Gradual reductions in STR without significant amendments to RA across the assessment years indicates an increase in effective tax rates. Thus, the research's first hypothesis is as follows:

H1: The effective tax rate of Malaysian incentivised firms utilising Reinvestment Allowance incentive increases over time

This study highlights RA's utilisation to examine the association of utilising reinvestment allowance (RA) towards ETR. Data on RA's utilisation is elicited from RA claims filed by taxpayers in specific columns provided in the tax return forms. RA utilisation is measured by the RA claimed during the year, divided by the actual maximum RA (in percentage). A previous study has asserted that companies do not utilise tax incentives paid low ETR since they have utilised other tax credits sources such as tax depreciation and accumulative loss (Forsling, 1998). In other words, the study suggested that firms that do not pay taxes tend to have a lower incentive to optimise the use of the tax allowance than firms in a tax-paying position. Pfeiffer and Spengel (2017) studied the influence of research and development (R&D) incentives on ETR. They discovered that the incentives lower European nations' tax burden since they are deducted straight from profit. Similarly, based on European Union countries, Lee and Swenson (2012) have also found that R&D tax benefits significantly affect ETR for publicly traded firms. This study hypothesises that when firms with incentives expect higher tax in any particular year, they utilise RA to reduce the taxable income. As RA utilisation is expected to affect ETR, the following hypothesis is developed based on the argument that incentivised firms that utilise tax incentives positively correlate with ETR. Hence, the second hypothesis that has been developed based on these arguments would be:

H2: Reinvestment Allowance utilisation is positively associated with the effective tax rate

A firm's profitability could determine whether taxes would be paid or otherwise (Delgado et al., 2014). Previous studies of profitability on ETR have reported mixed results, which has inspired this present study to concentrate on the variable of profitability. This current research has employed return on asset (ROA) to signify firm profitability. Delgado et al. (2014), Lee and Swenson (2012), Arniati et al. 2019, Taylor and Richradson (2012), as well as Frank et al. (2009) all indicated a substantial and positive relationship between profitability and ETR. These studies have indicated that a firm with higher profitability would have higher ETR. However, some studies have yielded contradicting results, such as firms with a higher ROA paying minimal taxes (Derashid & Zhang, 2003) and a negative association between ROA and ETR, as reported in Kraft (2014). These findings could be due to firms with higher profits could be applying tax strategies that decreased ETR. Noor et al. (2008) also deduce that firms with high profits could have enjoyed more tax deductions through numerous incentives and opportunities to reduce the tax burden, which addresses tax strategies avoidance previously mentioned. As profitability is expected to affect ETR, the third hypothesis is developed based on the argument that incentivised firms with high profits would have a positive relationship with ETR:

H3: Profitability of firms is positively associated with the effective tax rate

The book-tax gap (BTG) refers to the difference between financial and taxable income. The difference is regarded as the amount of income shielded from being taxed. Book-Tax Gap is computed as pre-tax book income less estimated taxable

income divided by total assets. Primarily, the tax benefits treatment affects taxable income assessment, including capital allowances, incentives utilisation, tax-exempt income, tax credit and deferred income. Consequently, it reduces a company's ETR. Therefore, BTG is applied in this present research to account for the influence of various tax benefits and capture alternative tax planning strategies undertaken by the incentivised firms. This study asserts that firms with incentives have exploited the multiple guidelines of financial reporting and tax reporting to reduce taxes, consistent with the underlying assumption from studies that have involved BTG (Frank et al., 2009; Nasution et al. 2020; Hanlon, 2005). Furthermore, this assumption is reaffirmed by Noor et al. (2009), who have found a gap in reporting income by firms that have lower ETR. Hence, this study hypothesises that firms with incentives can manage financial income higher than taxable income concurrently. The fourth hypothesis is as follows:

H4: Firms with incentives that have a higher book-tax gap is negatively associated with the effective tax rate

The fourth variable in this study is taxpayer profiling (TPP) of Malaysian resident firms obtained from tax returns. Based on IRBM (2015), firms are segregated into big domestic taxpayers (BTP), regular domestic taxpayers (RTP), and multinational (MN). This research utilises the TPP category of a firm determined by IRBM to examine the influence of company capacity, whether large or small, alongside the scale of their business operation that is domestic or multinationals on ETR. Thus, in employing TPP, this research enables assessing the effect of both the firm scale of operation and their capacity toward ETR. Anecdotes of evidence from academic research have suggested that multinational firms use foreign operation transactions and other strategies to reduce tax costs through a global operation structure (Dischinger et al., 2014). In addition, press reports in the Australian Financial Review, 2012 have mentioned the ability of multinational firms operating in Australia to take advantage of the discrepancies in tax legislation across different jurisdictions to reduce taxes significantly (Taylor & Richardson, 2014). In another similar research, Lee and Swenson (2012) find ETR for multinational firms were influenced by depreciation, debt tax shield, tax incentive, and inventory. As a result, multinational firms would likely have enhanced tax strategies inaccessible to domestic firms as these firms would not be able to take advantage of the incentives across countries.

On the other hand, multinational and domestic firms have recorded a similar ETR (Markle & Shackelford, 2009), whereby, except for Japan, Asian countries generally have mediocre ETR. Nonetheless, Dyreng et al. (2017) concede through a systematic analysis of ETR in the USA that multinational firms have a higher cash ETR than domestic firms. As disclosed by Dyreng et al. (2017) and Markle and Shackelford (2009), multinational firms do not appear to be at a disadvantage compared to domestic firms in tax avoidance. Therefore, both types of firms would benefit from decreased ETR over time. However, in this current research, the association of

taxpayer profiling with ETR is unidentified. Hence, the fifth hypothesis that is developed for this study would be:

H5: Multinational, big taxpayers, and regular taxpayers are negatively (positively) associated with the effective tax rate.

Research Methodology

The data source for this study was mainly elicited based on the administrative tax return corporate from the tax files compiled by the Department of Analytical and Statistics within the Tax Operational Division from Inland Revenue Board of Malaysia (IRBM). Besides, this study relied on the internal report on taxpayers' status generated by the Case Management System (CMS). Other tax components and control variables, such as tax auditing activities conducted by IRBM, type of directors, and tax consultants, were assessed within these internal data. The sample for this study was selected based on the criteria described in Table 1. Firms that claimed RA between 2007 and 2016 were sorted according to the year of observation. Thus, 7,153 firms had been initially selected for this study. Table 1 showed that Panel A included firms that reported negative net income (loss) and positive net income (profit), as used in equation 1. Explicitly, firms in Panel B were limited to reasonable profit and loss reported, and firms with complete information on variables, based on further filtration from Panel A firms. Thus, only 401 firms for 4,010 observations remained in this study. The tax return data for these 401 firms were matched with the taxpayer's historical tax audit record based on internally generated CMS Data.

Table 1. Criteria for a Sample Selection

Firm	Criteria	Number of Firms
	The total sample frame consisted of a firm utilising RA.	7,153
	Excluded:	
	i. firms that did not utilise RA in all observation years from 2007 to 2016 and	
	ii. firms reported incomplete claims on RA.	(5,955)
Panel A	Full sample inclusive of firms reported positive and negative net incomes	1,198
	Restrict:	
	iii. firms reported extreme values of profit (ROA) more than 100% and -100%, and firms with incomplete variables data in all observation years from 2007 to 2016.	(797)
Panel B	Final samples consisted of firms that reported profit and loss matched with the taxpayer profiles and historical audit records.	401
	401 firms for ten observation years.	4,010

Overall, this selection criterion allows for a balanced panel data of the incentivised firms and firms with complete information, maintaining the consistency of the results. This study had used firms in Panel B for Equation 2 and the statistical analysis within this study.

Table 2 shows the descriptive statistics of ETR and RAUTI variables for Panel A and Panel B, tabled out for comparison. The Spearman's rho correlations (not shown) indicated that all the tested variables had no significant correlation with ETR. Noor (2008) classified ETR into three classifications as follows: ETRs less than 10% is classified as low; (2) ETR between 10% to the top statutory tax rate is classified as normal; (3) ETR above the statutory is classified as high. The mean ETR for Panel A was 6.47 per cent, which was considered the lowest level according to Noor et al. (2008). Meanwhile, the mean for RAUTI was 20.09 per cent throughout the decade. Firms in Panel B demonstrated a better percentage in the means for ETR at 8.86 per cent and RAUTI at 34.6 per cent. The descriptive statistics obtained in Panel B were as expected since the sample excluded firms with extreme net loss values.

Table 2. Descriptive Statistics for Firms in Panel A and Panel B

Year	Mean ETR		Mean RAUTI	
	Panel A	Panel B	Panel A	Panel B
2007	0.0603	0.0795	0.1961	0.2986
2008	0.0553	0.0717	0.1957	0.3198
2009	0.0540	0.0721	0.1813	0.3194
2010	0.0568	0.0724	0.1888	0.3287
2011	0.0616	0.0729	0.1849	0.3129
2012	0.0667	0.0941	0.1854	0.3384
2013	0.0710	0.1021	0.1891	0.3526
2014	0.0746	0.1060	0.1911	0.3556
2015	0.0699	0.1054	0.2254	0.4014
2016	0.0764	0.1107	0.2707	0.4328
All	0.0647	0.0886	0.2009	0.3460

Panel A for 11,989 observations, while Panel B for 4,010 observations.

Results and Discussion

This section presents the results from the initial tests of this study on the changes in ETR in Malaysia across a decade that concentrated on corporate taxpayers claiming RA. Concurrently, the sub-sections also displayed the results of evaluating six of the primary hypotheses. The first hypothesis, which involved the ETR of Malaysian incentivised firms from 2007 to 2016, is summarised in Table 2. The mean of ETR across the years of observation was presented to indicate a gradual upward trend. The variable on time (Panel A firms) had also revealed an increasing trend from 5.4 per cent in 2009 to 7.4 per cent by 2014, before reducing slightly to 6.9 per cent in 2015. The ETR, however, rose steadily again in 2016 to as high as 7.6 per cent.

Overall, the results in Table 3 show statistical significance based on the slope of time trend, TIME, which was at 0.0024, $p=0.00$ that exhibited. Although ETR for incentivised firms had a small increase of 0.2 per cent over time, the average ETR of 6.47 per cent scarcely exceeded a quarter of STR in Malaysia (2016 = 24 per cent), which suggested that most of the average firms increased ETR when STR decreased gradually over time. However, the ETR trend still stood lower than STR over the sample period for firms utilising RA. Moreover, incentivised firms would pay taxes, although evidence suggested that these firms had also consistently held low ETR throughout the observed decade.

The estimation to examine the trend more accurately was replicated from Dyreng et al. (2017), which provided the following equation:

$$ETR_{it} = \alpha_0 + \alpha_1 TIME_t + \epsilon_{it} \quad (1)$$

The approach follows previous time-trend studies (e.g., Dyreng et al., 2017; Thomsen & Watrin, 2018), which examine the continued significance of TIME using ordinary least squares (OLS) regression. In particular, the ETR was regressed on a linear time trend variable. TIME is defined as the fiscal year for a given firm observed in 2007, which would be the first year of the data set, included identifying the variations in ETR between 2007 and 2016. Using the full sample of Panel A and Panel B, the result of estimating Equation (1), which is an OLS regression of ETR on a linear time trend (TIME), is shown in Table 3.

Table 3. Regression of ETR on TIME

Dependent Variable: ETR			
Method: Linear time trend			
Sample: 2007 to 2016			
Periods: 10 years			
Cross-sections: 1,198 firms (Panel A) and 401 firm (Panel B)			
Total panel (balanced): 11,980 and 4,010 observations			
Regression Output	Coefficient		
	Panel A		Panel B
Intercept	0.0538		0.0669
Standard error	0.0023		0.0037
t-statistic	23.2682		17.7660
Prob.(P-values)	*0.0000		*0.0000
TIME	0.0024		0.0048
Standard error	0.0004		0.0007
Prob.(P-values)	*0.0000		*0.0000
Mean dependent variable	0.0647		0.0886
S.D. dependent variable	0.1365		0.1291
R-squared	0.0025		0.0115

*Significant at P-values 0.05

Besides, Table 3 shows the mean for ETR of Panel B firms to be at 8.86 per cent. Results on the slope for TIME trend of ETR was at 0.0048, $p=0.00$, which confirmed the significant statistical output for firms in Panel B. Although the mean ETR had reported a positive profit in ten years, with only a 0.4 per cent increase, this result was slightly better than the output from firms in Panel A (0.2 per cent). Nevertheless, this additional test showed that the ETR for a firm, which claimed RA was still at the bottom, lower than the Malaysian STR. Using the methods described in selecting the firms for Panel B, the regression of ETR on TIME was estimated through variation in RAUTI (and RAFU), ROA, BTG, TPP, and other controlled variables. In addition, a set of controls that prior research has identified to be essential drivers of effective tax rate variations were employed (i.e., Bozanic et al., 2017, Delgado et al., 2014; Dyreng et al., 2008; Jones et al., 2018; Kraft, 2014; Noor et al., 2008; Solikhah et al. 2017; Sari et al. 2021; Taylor & Richardson, 2012, 2014). This approach was carried out based on the recent time-trend studies by Dyreng et al. (2017) and Thomsen and Watrin (2018), including additional explanatory variables. The estimated OLS Regression was calculated using equation 2:

$$\begin{aligned}
 ETR_{it} = & \beta_0 + \beta_1 RAUTI_t + \beta_2 RAFU_t + \beta_3 ROA_t + \beta_4 BTG_t \\
 & + \beta_5 TYDIR_t + \beta_6 TPP_t + \beta_7 SALES_t + \beta_8 TAM_t \\
 & + \beta_9 LEV_t + \beta_{10} SIZE_t + \beta_{11} TIME_t + \beta_{12} TC_t \\
 & + \beta_{13} SEC_t + \beta_{14} IVEST_t + \beta_{15} TC + \epsilon_t
 \end{aligned} \quad (2)$$

Table 4 presents OLS estimation results, whereby the regression coefficient for the variables of interest, ROA, RAUTI, and TPP for MN, were positively and significantly associated with ETR ($p=0.000$). BTG has a positive mean value and was the only primary variable that showed a negative and significant association with ETR ($p=0.000$). A positive mean value is an indication that firms reported accounting income more than their taxable income. RAUTI significantly and positively affected the ETR. The firm that utilised RAUTI generally paid slightly higher taxes. These results indicated that firms that had successfully utilised RA not only would capitalise on tax benefit but also showed proof of revenue growth, which consequently contributed to an increase in taxes. Therefore, H2 was supported. ROA had the highest coefficient (0.1727) among the variables, with a significant positive association with ETR. This result indicated that profitable firms tended to have higher ETR. Profitable firms that claimed RA had a positive relation with ETR and consistently paid tax at a significantly lower effective rate of 8.87 per cent, which supported H3. The taxpayer profiling for multinational taxpayers (MN) was positively and significantly associated with ETR, which indicated that MN was willing to pay taxes. These results had highlighted the notion that MN had less advantage within an international scale of operations in reducing ETR. The minimal range of STR in Malaysia may have also been a motivational aspect for MN to continuously pay taxes while enjoying the benefits of numerous tax incentives offered, including RA.

On the other hand, BTG was revealed to be the highest coefficient (-0.8642) within the negative variables associated with ETR. Hence, the regression coefficient that involved BTG was negatively yet significantly associated with ETR. BTG encompassed aspects related to tax deductions, such as capital allowances, reliefs, incentives deduction and allowable deductions. Hence, a higher and positive value of BTG might reduce ETR significantly, with firms taking advantage of the gaps in taxation laws to reduce ETR. Thus, hypothesis 4 was supported. Overall, the Durbin-Watson statistic demonstrated that the model described in Table 4 has positioned between the range of 1.0 and 2.0 points suggested a positive correlation between errors. The output from the Durbin-Watson statistic at 1.3926 was considered satisfactory within this study, as the estimation had a minimal effect (Startz, 2015).

Table 4. Results of OLS Regression

Variables	Predicted Signed	Coefficient	Std. Error	t-Stat.	Prob.
Constant		0.0419	0.0218	1.9243	0.0544
RAUTI	+	0.0850	0.0083	10.2840	*0.0000
RAFU	+	0.0474	0.0079	5.9936	*0.0000
ROA	+	0.1727	0.0140	12.3102	*0.0000
BTG	-	-0.8645	0.0370	-23.341	*0.0000
TPP=Big Taxpayer	?	-0.0033	0.0045	-0.7244	0.4689
TPP=Multinational	?	0.0151	0.0071	2.1284	*0.0334
FDIR=Foreign Director	?	-0.0021	0.0044	-0.4766	0.6337
TAM=Experiencing TAM	?	-0.0029	0.0048	-0.6016	0.5474
SALESG	?	-0.0003	0.0004	-0.9155	0.3600
LEV	?	-0.0001	0.0002	-0.3573	0.7209
IVEST	?	0.0074	0.0071	1.0365	0.3001
SIZE	?	0.0033	0.0030	1.1000	0.2714
TIME	?	0.0021	0.0006	3.6068	*0.0003
TC= Big Four Audit Firm	?	-0.0048	0.0043	-1.1131	0.2657
R-squared		0.3325	Mean var	dependent	0.0886
Adjusted R-squared		0.3290	S.D. var	dependent	0.1291
F-statistic		94.5983	Durbin-Watson stat		1.3926
Prob(F-statistic)		0.0000			

*Significant coefficient at P-values 0.05

Variables definition:

- RAFU =Reinvestment Allowance (RA) utilisation as a dummy variable for firm fully utilised RA (100 per cent utilisation) categorised as one (1) and firm with unutilised RA categorised as zero (0).
- TYDIR =The type of directors was a categorical variable. The presence of a foreign director in a firm was referred to as FDIR. The presence of a domestic director was referred to as DDIR
- TAM =Tax authority monitoring consisted of a dichotomous outcome. Firms experiencing tax audit monitoring throughout the observation year of 2007 to 2016 were assigned as “1” and “0” otherwise.
- SALEG =Sales growth was measured as (Sales t – Sales t-1) divided by Sales t-1.
- LEV =Leverage was measured as total debts divided by total assets
- IVEST =Capital intensity measured as fixed assets divided by total assets
- SIZE =Firm size was the natural logarithm of total assets
- TC =Tax consultant was a dummy variable for firms that engaged the services of the BIG Four audit firm to denote as BIG Four and others.

Discussion

This research evaluates systematic variations in corporate effective tax rates over the last decade among incentivised firms by replicating Dyreng et al.’s (2017) technique, assuming that low ETRs result from purposeful tax avoidance. Additionally, in-depth assessments were carried out on the determinants that lead to the increasing trend of ETR. By contrast, Dyreng et al. (2017), Thomsen and Watrin (2018), Pradipta et al. (2020) and Drake et al. (2020) discover decreasing trends in their time trend regressions due to specific tax incentives, firm structure, cross-country comparisons, and the statutory tax rate. Furthermore, they established that firms seem to be more able to minimise their ETRs over time and hence engage in tax avoidance. Nonetheless, their investigation indicated a considerably normal mean ETR between 27.9 and 32.7 per cent. Conversely, the authors detect that incentivised firms may avoid a considerable percentage of corporate income tax over time. Even though the average ETR of incentivised firms had risen slightly over time, tax avoidance remains prevalent due to their low mean ETR of 6.4 per cent.

Conclusions

This study’s results are based on the administrative tax returns data to investigate the trend of effective tax rate across ten years of observation on incentivised firms. This study has also examined the relation between tax-related components and ETR. Decreasing statutory tax rates are initially believed to allow firms to increase ETR. As expected, the result shows that the mean ETR of Malaysian firms that utilise RA demonstrates a negligible increase of 0.2 per cent over time. Moreover, the ETR remains at a lower threshold of 6.47 per cent, which is below the range of STR in Malaysia. While the growing trend implies that average firms pay tax, the evidence proposes that firms hold the ETR at a shallow threshold throughout the observed time. Presumably, RA will benefit the government in terms of growth in revenue

collection among firms with incentives over time. Nonetheless, based on the evidence of small contributions in taxes that have been found in this research, this objective might take a longer time to achieve. Besides, firms with incentives will also deliberately use RA to reduce taxes and retain low ETR. The robust analysis results reveal that firms employ tax planning to pay taxes at a lower rate of 8.86 per cent while benefiting from tax incentives instead of avoiding tax payments. These firms demonstrate an increase of 0.4 per cent over time, confirming the slight increase in ETR. These firms are also detected to have held onto unutilised RA securely for a more extended period and only utilise 20 per cent (Panel A) and 34.6 per cent (Panel B) of RA per year. Firms with incentives from both Panel A and B have demonstrated that a low amount of taxes relative to pre-tax profits will be paid after an extended period. Besides, this study also shows that the annual ETR would not be able to prove an actual incidence that has employed tax avoidance strategies. For example, by referring to the annual effective tax rate in 2016 (Table 2 of Panel B), firms with incentives have a normal ETR of 11.07 per cent, whereas, within an average ETR of ten years to be much lower at 8.86 per cent. Hence, this study can confirm that extended observation time would be a good indicator for the effective tax rate, which are reliable measures for tax avoidance strategies. In terms of the determinants of ETR, the significant finding from ROA on ETR indicates the efficiency for a firm to sustain a decent performance and report sound financial income has gradually led to the rise of ETR.

Additionally, the significant association of RAUTI on ETR demonstrates that firms utilised RA during the ten years of observation, which shows higher ETR than firms underutilised RA. As a result, the government should consider RAUTI as an essential aspect in ensuring high utilisation of this incentive by firms with this advantage to benefit the government in terms of contributed tax. This study also shows multinational (MN) to have a significant and positive effect on ETR. This result proves that MN firms do not necessarily take advantage of the international operation scale to pay lower taxes. This study's positive association with ETR shows that MN pays taxes continuously at a lower rate.

On the other hand, BTG is the only indicator that shows a negative effect on ETR. These pieces of evidence indicate that incentivised firms will take advantage of the gaps in the taxation system within Malaysia, whereby a low taxable income will be reported to the tax authority to fulfil taxation law. On the other hand, a higher book income is simultaneously shown to other interested parties during the same reporting period.

The outcome of this research has some implications in the tax policies concerning unwanted effects from tax incentives. While the government may attract the reinvestment of profit through RA, firms with incentives also continuously benefit from low ETR over time. As a trade-off, the government might only gain a small portion of tax revenue contributed by these firms. The government may also need to reconsider an effective tax reform in providing subsequent tax incentives to the same taxpayer, considering that these firms would have enjoyed a generous tax benefit

after another. Therefore, there is a need to manage and seek a balance between tax incentives that attract investments and secure the necessary tax revenues for the country.

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References

- Arniati, T., Puspita, D.A., Amin, A. and Pirzada, K. (2019). The implementation of good corporate governance model and auditor independence in earnings' quality improvement, *Entrepreneurship and Sustainability Issues* 7(1): 188-200.
- Bank Negara Malaysia., (2017). Rethinking Investment Incentives. *Bann Negara Malaysia Quarterly Bulletin, 3rd Quarter*. Retrieved from http://www.bnm.gov.my/files/publication/qb/2017/Q3/p3_ba1.pdf
- Bozanic, Z., Thornock, J. R., Hoopes, J. L. and Williams, B. M., (2017). IRS Attention. *Journal of Accounting Research*, 55(1), 79–114.
- Chen, D., (2015). *The Framework for Assessing Tax Incentives : A Cost-Benefit Analysis Approach. Paper for Workshop on Tax Incentives and Base Protection New York, 23-24 April 2015.*
- Delgado, F. J., Fernandez-Rodriguez, E. and Martinez-Arias, A., (2014). Effective Tax Rates in Corporate Taxation: a Quantile Regression for the EU. *Engineering Economics*, 25(5), 487–496.
- Derashid, C., Zhang, H., (2003). Effective tax rates and the “industrial policy” hypothesis: evidence from Malaysia. *Journal of International Accounting, Auditing and Taxation*, 12(1), 45–62.
- Dischinger, M., Knoll, B. and Riedel, N., (2014). The role of headquarters in multinational profit shifting strategies. *International Tax and Public Finance*, 21(2), 248–271.
- Drake, K. D., Hamilton, R. and Lusch, S. J., (2020). Are declining effective tax rates indicative of tax avoidance? Insight from effective tax rate reconciliations. *Journal of Accounting and Economics*, 70(1), 101317.
- Dyreng, S. D., Hanlon, M. and Maydew, E. L., (2008). Long-Run Corporate Tax Avoidance. *The Accounting Review*, 83(1), 61–82.
- Dyreng, S. D., Hanlon, M., Maydew, E. L. and Thornock, J. R., (2017). Changes in Corporate Effective Tax Rates Over the Past 25 years. *Journal of Financial Economics*, 124, 441–463.
- Evers, L., Miller, H. and Spengel, C., (2015). Intellectual property box regimes: effective tax rates and tax policy considerations. *International Tax and Public Finance*, 22(3), 502–530.
- Finér, L., Ylönen, M., (2017). Tax-driven wealth chains: A multiple case study of tax avoidance in the Finnish mining sector. *Critical Perspectives on Accounting*, 48, 53–81.
- Forsling, G., (1998). Utilisation of Tax Allowances. *Finnish Economic Paper*, 11(2), 96–109.

- Frank, M. M., Lynch, L. J. and Rego, S. O., (2009). Tax Reporting Aggressiveness and Its Relation to Aggressive Financial Reporting. *The Accounting Review*, 84(2), 467–496.
- Frischmann, P. J., Shevlin, T. and Wilson, R., (2008). Economic Consequences of Increasing the Conformity in Accounting for Uncertain Tax Benefits. *Journal of Accounting and Economics*, 46 (2-3), 261–278.
- Fuest, C., Riedel, N., (2009). Tax evasion, tax avoidance and tax expenditures in developing countries: A Review of the literature. *Report prepared for the UK Department for International Development* (Vol. 44).
- Griffith, R., Devereux, A., (2003). Evaluating tax policy for location decisions. *International Tax and Public Finance*, 10(2), 107–126.
- Hanlon, M., (2005). The Persistence and Pricing of Earnings, Accruals, and Cash Flows When Firms Have Large Book-Tax Differences. *The Accounting Review*, 80(1), 137–166.
- Hanlon, M., Heitzman, S., (2010). A review of tax research. *Journal of Accounting and Economics*, 50(2–3), 127–178.
- IRBM., (2015). Decentralisation of Income Tax Files Subsequent To the Setting Up of Large Taxpayer Branch (Ltb) and Large Taxpayer Unit (Ltu). Retrieved from http://lampiran1.hasil.gov.my/pdf/pdfam/DECENTRALISATION_OF_INCOME_TAX.pdf
- Jones, C., Temouri, Y. and Cobham, A., (2018). Tax haven networks and the role of the Big 4 accountancy firms. *Journal of World Business*, 53(March 2017), 177–193.
- KPMG International., (2018). Which Firms Paid The Most in Taxes. Retrieved 2 December 2018, from <https://home.kpmg.com/my/en/home/media/press-releases/2018/01/which-firms-paid-the-most-in-taxes.html>
- Kraft, A., (2014). What Really Affects German Firms' Effective Tax Rate? *International Journal of Financial Research*, 5(3), 1–19.
- Lee, N., Swenson, C., (2012). Are Multinational Corporate Tax Rules as Important as Tax Rates? *The International Journal of Accounting*, 47(2), 155–167.
- Mohanadas, N.D., Salim, A.S.A. and Ramasamy, S., (2021). Corporate Tax Avoidance of Malaysian Public Listed Companies: A Multi-Measure Analysis, *Accounting and Finance Review*, 6(1): 44 – 53.
- Mahenthrian, S., Kasipillai, J., (2011). Influence of Ownership Structure, Corporate Governance, and Cultural on Tax Policy: Evidence from Malaysia. *SSRN Electronic Journal*, 1–31.
- Markle, K. S., Shackelford, D., (2009). Do Multinationals or Domestic Firms Face Higher Effective Tax Rates? *NBER Working Paper No. 15091*.
- Nasution, M. K., Santi, F., Husaini, H., Fadli, F. and Pirzada, K., (2020). Determinants of tax compliance: a study on individual taxpayers in Indonesia. *Entrepreneurship and Sustainability Issues*, 8(2), 1401-1418
- Noor, R. M., Mastuki, N. and Bardai, B., (2008). Corporate Effective Tax Rates: A Study On Malaysian Public Listed Companies. *Malaysia Accounting Review*, 7(1), 1–20.
- Noor, R. M., Mastuki, N. and Bardai, B., (2009). Book-Tax Difference and Value Relevance of Taxable Income: Malaysian Evidence. *Journal of Financial Reporting and Accounting*, 7(2), 19–40.
- Pfeiffer, O., Christoph, S., (2017). Tax Incentives for Research and Development and Their Use in Tax Planning. *ZEW- Centre for European Economic Research*. Discussion Paper No 17-046.

- Pradipta, A; Zalukhu, A.G., (2020). Audit Report Lag: Specialized Auditor and Corporate Governance, *Global Journal of Business and Social Science Review*, 8(1): 41 – 48.
- Rudyanto, A. Pirzada, K., (2021), The role of sustainability reporting in shareholder perception of tax avoidance, *Social Responsibility Journal*, Vol. 17 No. 5, pp. 669-685.
- Richardson, G., Lanis, R., (2007). Determinants of the variability in corporate effective tax rates and tax reform: Evidence from Australia. *Journal of Accounting and Public Policy*, 26(6), 689–704.
- Sari, D.P., Lutfillah, N.Q., Rahayu, S., Yudi Y. and Rahayu R., (2021). Taxpayer's Compliance: Towards Voluntary Compliance, *Journal of Finance and Banking Review*, 6(1), 62 – 71.
- Salihu, I. A., Annuar, H. A. and Sheikh Obid, S. N., (2015). Foreign investors' interests and corporate tax avoidance: Evidence from an emerging economy. *Journal of Contemporary Accounting & Economics*, 11(2), 138–147.
- Solikhah, B., Della Firmansyah, N. and Pirzada, K., (2017). The Influence of Effective BOC on Choice of Auditor. *Pertanika Journal of Social Science and Humanities*, 25 (S), 271-280
- Startz, R., (2015). *EViews Illustrated for Version 9. IHS Global Inc .* (M. S. and I. G. Inc, Ed.). IHS Global Inc.
- Taylor, G., Richardson, G., (2012). International Corporate Tax Avoidance Practices: Evidence from Australian Firms. *The International Journal of Accounting*, 47(4), 469–496.
- Taylor, G., Richardson, G., (2014). Incentives for corporate tax planning and reporting: Empirical evidence from Australia. *Journal of Contemporary Accounting & Economics*, 10(1), 1–15.
- The Star., (2018). New Malaysia, new taxes. Retrieved 18 October 2018, from <https://www.thestar.com.my/business/business-news/2018/10/13/new-Malaysia-new-taxes/>
- Thomsen, M., Watrin, C., (2018). Tax Avoidance Over Time: A Comparison of European and U.S. Firms. *Journal of International Accounting, Auditing and Taxation*, 33, 40–63.
- World Bank., (2018). Global Investment Competitiveness Report 2017/2018. *Foreign Investor Perspectives and Policy Implications*. Washington, DC: World Bank.

UNIKANIE PODATKÓW Z CZASEM: WNIOSKI Z ZACHĘTY PODATNIKA KORPORACYJNEGO

Streszczenie: Firma motywowana, która płaci niskie podatki, może nie angażować się w nieuczciwe zarządzanie, jak się powszechnie zakłada. Może to jednak być spowodowane strategiami unikania opodatkowania zaobserwowanymi poprzez obniżoną lub efektywną stawkę podatkową (ETR) w ciągu dziesięciu lat. Dlatego w badaniu tym zbadano trend czasowy ETR na przestrzeni dziesięciu lat oraz determinanty związane z trendem wśród firm z zachętami. Niniejszy artykuł koncentruje się na strategiach unikania opodatkowania stosowanych przez firmy korporacyjne w Malezji, które korzystały z zachęty podatkowej w postaci ulgi na inwestycje (RA). Wyniki wykazały jedynie minimalny wzrost o 0,2 procent przy niskich średnich ETR wynoszących 6,47 procent w ciągu dekady. Ustalenia z tego badania na temat konsekwentnie niskich podatków utrzymywanych przez firmy korzystające

z zachęt przez dziesięć lat mogą wynikać ze zwolnienia podatkowego z licznych hojnych zachęt podatkowych i wykorzystywania przez podatników luk w systemie podatkowym.

Słowa kluczowe: efektywne stawki podatkowe, unikanie podatków, ulga reinwestycji, zachęta podatkowa, opodatkowanie.

长期避税：受激励的企业纳税人的见解

摘要：一个支付低税的激励公司可能不会像通常假设的那样从事欺诈管理。然而，这可能是由于十年间通过降低或降低有效税率 (ETR) 观察到的避税策略。因此，本研究调查了 10 年 ETR 的时间趋势以及与具有激励措施的公司之间的趋势相关的决定因素。本文重点介绍马来西亚使用再投资津贴 (RA) 税收优惠的公司所采用的避税策略。结果显示，十年内仅增加了 0.2% 的最低 ETR 平均值为 6.47%。这项关于有激励措施的公司十年内持续保持低税率的研究结果可能是由于从众多慷慨的税收激励措施中免税，以及纳税人利用税收制度的漏洞

关键词：有效税率、避税、再投资津贴、税收激励、税收