

Tax Incentive Recipient Firm Characteristics and Performance within Malaysian Small and Medium Firms

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ABSTRACT

Policymakers can stimulate economic sustainability through tax incentives. However, what qualifies firms as recipients of tax incentives and what motivates them to apply for tax incentives is still up for debate. Investment may not be effectively encouraged by tax incentives. This is because investments might lead to write-downs and cash flow constraints. This study assessed characteristics of firms receiving tax benefits (TR companies). This is the first study to compare them, as TR-status are not always observable. Our analysis demonstrates that the change in prior-year assets and profits is significantly different for TR companies than non-recipients (non-TR companies). In the year that TR companies received tax incentives, their expenditures increased. Nonetheless, since the overall tax burden is computed using the effective tax rate (ETR), and the ETR may also be the result of tax avoidance without tax incentives, the profit performance of TR firms in relation to the utilization of tax incentives was not evident. Additionally, changes in profit performance did not appear to have played a significant influence on the authority's tax incentive decisions. Our findings could assist policymakers evaluate tax incentives as fiscal tools for economic viability.

Keywords: Tax incentives, Firm's characteristics, Effective Tax Rate (ETR), Sustainability

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INTRODUCTION

Small and Medium Enterprises (SMEs) contribute play an very important role in the development of the economy in any country in recent years especially in creating employment, improving the living of society as well as contribute to the growth a nation's revenue and Gross Domestic Product (Wengler et al. 2021; Everett 2021; Priyono et al. 2020; Ardito et al. 2021, Denicolai et al. 2021) However, there are many challenges that the sector has to overcome such as lack of financial resources, lack of market for their products, unskilled labourers, insufficient infrastructure facilities and above all unpleasant government taxation policies (Lawal and Oluwaremi, 2016). In Malaysia, the Academy of Sciences Malaysia reported that SMEs accounted for 98.5% of business establishments, contributing 38.2% of Malaysia's gross domestic product (GDP) in 2019 and created about half of the country's total employment from 2016 to 2020 (Mahidin, 2021).

Tax incentives are very common around the world, especially in developing countries. Governments attempt to reallocate or attract domestic and foreign capital using tax incentives that give a more favourable tax treatment to certain economic activities. Common examples of this practice are reduced corporate income tax rates, temporary exemptions on corporate taxes (tax holidays), tax deductions through tax credits or investment allowances, to name a few. Whatever their intentions, it is argued that the use of tax incentives in developing countries is controversial, as they come with significant, and sometimes overlooked costs. Apart from financial costs, such as foregone revenue and administrative awareness of their costs, these tend to stress the potential benefits in terms of higher investment and related spill overs. Asiri, Al-Hadi, Taylor and Duong (2020) provided evidence that should the firm engage in tax avoidance, firms' cash tax savings from avoidance activities are not efficiently used. Apago, Bule and Petrovska (2022) showed that a significant number of SMEs are convinced direct financial support from government and tax incentives may ease them to cope with digital transformation. This is consistent with the notion that the tax-based fiscal initiatives are intended to improve economic development, the business climate, employment, and income distribution (Prillaman and Meier, 2014). Tax incentives have been found to be critical in encouraging private and public businesses as policy makers assume that by decreasing the business tax burden, businesses will be better able to stimulate the

economy through more efficient production, job creation, and business expansion (Prillaman and Meier, 2014).

Like other countries, Malaysia has undertaken several tax reforms due to global tax competitions and other national economy aspirations. According to Rohaya, Mastuki and Barjoyai (2008), the tax competition strategy can be achieved either by amending the corporate tax laws, such as lowering the statutory tax rate (STR), or by providing tax incentives to favoured industries such as investment tax credit and pioneer status. The current and previous budgets in Malaysia have also included tax incentives for and financing support to many economic activities such as to improve skills and encourage training; upgrade educational facilities; automate and modernize manufacturing processes and facilities; expand activities into higher value-added segments; entrepreneurship development programs and others. To date, the greatest allocation of RM38.7 billion has been made through the 2021 Budget to benefit SMEs. Despite these efforts with the objectives to encourage firms' involvement in the targeted economic activities, the tax policies are not always favourable or meet industry needs. Firms' investment decisions will not rely solely on tax incentives; thus, this study intended to take a closer look at characteristics of firms that have successfully been granted with tax incentives (TR-firms) and evaluate if they are significantly different from those non-TR firms. Further, this study examined if the TR status significantly affected current year firm performance. This analysis is crucial, so as to better understand the immediate economic effect of tax incentive at the firm level. Should the tax incentive be a favourable tool for enhancing the firm performance and simultaneously its sustainability, it may suggest to policymakers to review current tax policies to make it more convenient and attractive.

Problem Statement

Even though the objective of tax incentives is to reduce the financial burden of taxpayers, it is also argued that tax incentive is also one of the common elements in tax avoidance. It is very difficult to identify if the reduced tax burden is a result of tax incentive utilisation or because of more aggressive taxes. This is because the information about tax incentives recipients as well as other tax practices by the companies are usually not transparent. In addition, should companies benefit from tax incentives, it is

also argued if the firms use those tax saving efficiently. Asiri et al., (2020) provided evidence that firms' cash tax savings from avoidance activities are not efficiently used. Thus, considering the associated costs engaging in tax avoidance, (including the utilisation of tax incentives granted by tax authorities), some factors such as, the complexity of tax incentive application as well as inconsistency in the availability of tax incentives offering makes it more difficult for firms to strategize their business expansion through targeted economic activities (encouraged through the tax incentives offering). Thus, it is expected that firms that are keen to participate in tax incentive applications are those firms within mild business expansion, as the cost saved from a reduced tax burden may not be huge enough to support massive business expansion. In other words, the benefit that the tax incentives shall offer may not be attractive enough to drive the applicants to participate in the targeted economic activities. It is however expected to be only becoming an interesting offer to firms that are in the small to medium expansion and /or within the earlier stage of business expansion. Consistent with Green and Kerr (2016), firms use cash tax savings from tax avoidance activities on new investments. Nevertheless, whether this internally generated cash is used efficiently is unknown. Thus, measuring the effectiveness of tax incentives (reduced tax burden) in encouraging new investments has become more difficult.

Firm Characteristics

Hanlon and Slemrod (2009) reported that shareholders are interested to reduce the burden of taxes to increase company value. Further, prior studies have also argued that tax avoidance exercised by firms may affect their ability to achieve investment targets through an increase in tax savings (Armstrong, Blouin & Larcker, 2012; Graham, Hanlon, Shevlin & Shroff, 2014).

Nonetheless, it is also argued that firms' investment decisions will not rely solely on tax incentives, especially regarding investment and funding policies (Graham, 2003). Asiri, Ahmed Al-Hadi, Taylor and Duong (2020) found a positive association between corporate tax avoidance activities and investment inefficiency, suggesting that firms' cash tax savings from avoidance activities are not used efficiently. However, there have also been studies that have shown a negative relationship between business taxes and

economic development. Meanwhile, it is argued that these empirical studies are still limited and only focus on a few limited research objectives such as the determinants of business location thus, a generalization cannot be made (Bartik 1992; Buss 2001). Crespi, Giuliadori, Giuliadori and Rodriguez (2016) found that effects of tax incentives vary depending on the type of investment being subsidized, industrial sector, and size of firm. Despite all these findings and arguments, one interesting question is if the intended economic activities may still occur without such incentives.

It is undeniable that there is also evidence that targeted economic activities are tax sensitive. For example, Wang and Kesan (2022) supported that a tax credit policy in China that stringently specified R&D criteria for improving innovation in SMEs directly improved innovation and indirectly improved the survivability of the SMEs. Nevertheless, the visibility of tax incentives on firm performance is difficult to be objectively observed by the previous studies. Prillaman and Meier (2014), argued these studies were limited and had failed to consider the economic effects of business-targeted tax policies as well as were unable to verify the intuition driving their adoption of tax incentive. It was argued that business taxes make a relatively small percentage of corporate revenues, thus, the visibility of tax policy sensitivity on business may not easily be seen. Further, if businesses can pass taxes onto consumers and workers through higher prices and lower wages, the development that result from market expansion may also be not visible. It was also argued that the tax rate is only one factor that businesses consider in making decisions as many other factors are also considered in any decision to start, expand, or close a business.

Some other factors such as the complexity of tax incentive application, and inconsistency in the availability of the tax incentives offering makes it more difficult for firms to strategize their business expansion through targeted economic activities. Tax complexity may assume a variety of forms such as computational complexity, form complexity, compliance complexity and a low readability level (Saw & Sawyer, 2010). Based on the Asia Pacific Tax Complexity Survey conducted by Deloitte in 2017, it was reported that the present tax systems are complicated and ambiguous. In fact, it was also reported that Beyond 80% of the respondents throughout Asia Pacific perceived that both compliance and reporting obligations in the countries where they operate were complex. Thus, it is expected that the firms that

are keen to participate are those firms within mild business expansion as the cost saving from the reduced tax burden may not be huge enough to support a massive business expansion. On the other hand, tax incentives may not be attractive enough to drive the applicants to participate in the targeted economic activities. Thus, a systematic study linking the firm's characteristic not only with tax burden (ETR), but also with the consideration of whether the firms are the tax incentive recipient or non- tax incentive recipient, is required to fully comprehend the factors influencing the successful granting of tax incentives and/or the motivation of firms to apply for tax incentives.

In Malaysia, Saifi et al., (2015) argued that tax awareness has led to the reluctance of tax payment amongst taxpayers. Despite the generous support by the government, Mohamad (2016) reported that, the Inland Revenue Board of Malaysia (IRBM) had investigated about 9,815 tax audit cases related to tax evasion by SMEs in 2011. Hamid et al. (2019) on the other hand, found that some SMEs had complied with submitting tax returns while some others had not. Tax awareness is beneficial to taxpayers as it improves their understanding of the tax system to calculate, pay, and declare their income. This should also include the awareness about the availability of tax incentives within their setting. However, SMEs may not be able to benefit from it due to their lack of tax awareness.

Another plausible characteristic is the pre and post firm performance. We understand that the government reduces certain taxation to promote business growth especially in the private sector (Chien et al., 2021; Madzivhandila & Niyimbanira, 2020). However, there is still a little and inconclusive evidence if the tax incentives promote better firm performance. The effectiveness of tax rates has been dominant in recent years and has a significant contribution towards sustainable business performance (Lian, 2022). In fact, over the past few years, studies have found that due to some implications of corporate effectiveness, the tax rates have been constantly shifted together with the relevance to sustainable business performance (Dyrenge et al., 2017; Nawaz et al., 2021; Sun et al., 2020). In contrast, a more recent study by Sun et al., (2020) there is little evidence on the effectiveness of tax incentives from the perspective of firm's profitability. We compare value-added tax (VAT) found that China's 2008 VAT incentives led to a decrease of 4.7% in profitability of new energy enterprises on average suggesting ineffective means in promoting firm return on equity (ROE).

Other prior studies, however, have used tax rates or tax burdens, but these measures neither allowed for seamless comparisons across states and time nor accurately measured the complete level of taxation faced by businesses. Prillaman and Meier (2014) argued that by looking just at corporate income-tax rates fails to incorporate all aspects of a business tax policy. Bartik (1992) argued that it is impossible to control each factor that influences business decision making because it is difficult to compare the individual effects. Thus, we were keen to examine if existing firm performance is also a factor for the firm to be granted with tax incentives.

Tax Burden Measure and Firm Performance

One of the issues faced in prior studies is the use of Effective Tax Rates (ETRs) as a summary statistic of tax burden, describing the amount of tax paid by a firm relative to its gross profit. Measuring tax burden is controversial as the overall tax burden may comprise many elements of taxes including tax incentives, resulting in the effective rate that differs from the statutory tax rate. However, ETR also suffers from a complex spectrum ranging from tax incentives to severe tax avoidance practices. Thus, ETR may not fairly tell us if the tax burden is due to tax incentive utilization or to the extreme tax evasion practice.

Unlike Sun et al (2020), other studies mostly used ETR as a measure of a reduced tax burden, but this measure incorporates the use of both intentional tax avoidance and routine business activities to reduce taxes (Dhawan et al. 2020; Rohaya, Nur Syazwani & Nor'Azam, 2010). ETRs are used by public and policy makers alike, as a tool to help identify the level of neutrality of the tax system as well as determining the characteristics of firms with higher and lower (relative) tax burdens (Harris & Feeny, 2003). Because taxes are imposed on different rates by different revenues, and complexities involving inflation, corporate financial policy, various tax incentives including capital allowance, tax credit and many others; policy makers and other interest groups such as researchers frequently refer to summary statistics such as the effective tax rate (Fullerton, 1984). Further, because these rates vary according to industry type, ETR has been used to measure tax burden or distributional effects of a tax system and to measure the impact of taxes on incentives (Fullerton, 1984).

Hence, measuring tax burden is controversial as the overall tax burden may comprise many elements of taxes including tax incentives, resulting in the effective rate to differ from the statutory tax rate. However, ETR also suffers with a complex spectrum ranging from tax incentives to severe tax avoidance practices. Thus, ETR may not fairly tell if the tax burden is due to tax incentive utilization or to the extreme, tax evasion practice. Consistent with Dhawan et al., (2020), using ETR as one of the measures, asserted that their data did not allow to precisely distinguish between intentional tax avoidance and routine business activities. Therefore, this study attempted to mitigate this methodological issue by identifying those firms that have been granted with tax incentives with those that are less likely to receive tax incentive; to better distinguish the potential different impact on firm's reduced tax burden. This data was available from Malaysia Investment Development Authority (MIDA) an agency for the development of the manufacturing and service sectors in Malaysia.

The Economic Theory and Hypotheses Development

The Economic Theory suggests that the objective of targeted tax cuts for businesses is to help firms reduce the cost of doing business. Businesses will locate and expand in the location with lower business taxes or choose to participate in economic activities that have been given tax incentives by the government to reduce their tax burden. From these tax cost savings, profits should be increased and which subsequently allows the firms to have a greater ability to invest in more capital.

Business expansion is expected to be able to increase employment, stimulate economic growth and strengthen the labour market and simultaneously contribute to a significant implication for the economic development of a country. However, these theoretical predictions are based on some assumptions that may not be empirically applied. First, this theory assumes a perfect market, where, only the tax level factor is a variable factor, and assumes other factors as unchanged. Moreover, this theory also assumes that business taxes are large enough to influence enterprise behaviour. If business taxes are insignificant compared to other production costs, then this expected relationship may not occur. Only if the transaction cost of considering a tax increase exceeds the potential profit from the decision, then the firm is irrational not to consider the tax burden in their decision.

Otherwise, the tax burden may less likely be the concern in a firm's decision making. Furthermore, as the effectiveness of tax rates has a significant contribution towards sustainable business performance (Lian, 2022), the following hypotheses were developed using various performance indicators.

Hypothesis 1

- H1(a):** Effective tax rates of tax incentives- recipient (TR) firms are significantly different from non-recipients
- H1(b):** The change of the total assets for tax incentives- recipient (TR) firms are significantly different from non-recipients (Non-TR)
- H1(c):** The change of profit of tax incentives- recipient (TR) firms are significantly different from non-recipients (Non-TR)
- H1(d):** The firm size of tax incentives- recipient (TR) firms are significantly different from non-recipients (Non-TR)

Hence, the research question of this study is How do the firm's characteristics influence the application and granting of tax incentives? The purpose of this study was to fully understand the factors influencing successful tax incentives to be granted and/or the intuition of the firms to apply for tax incentive. A systematic study is needed to link firm characteristics not only with tax burden (ETR), but also to segment those firms into a tax incentive recipient or non-recipient status. Next, as ETR may not fairly tell us whether the tax burden is reduced due to tax incentive utilization or to the extreme, tax evasion practice, this study attempted to mitigate this methodological issue by identifying firms that have been granted with tax incentives with those that are less likely to receive tax incentive.

RESEARCH METHOD

The sample of firms was obtained from Small and Medium Enterprises (SMEs). SMEs firms were selected as many incentives have been granted by the Malaysian Government including tax incentives, as a continuous effort to support the growth of these firms. The period selected was 2017, the earliest year prior to the Malaysian Government change. The top 500 firms with a tax recipient status from MIDA were selected. The Non-TR companies were

randomly selected from the Suruhanjaya Syarikat Malaysia (SSM) database after the top 500 TR status were excluded. Data was extracted manually from the firms' annual reports. Further, the samples were refined as follows:

1. Firms with net operating loss (or negative cashflow) and net operating loss carry forward is excluded from the sample data, because they would introduce confounding effects and the results would be difficult to interpret (Kim & Limpaphayom, 1998; Wilkie & Limberg, 1990).
2. In the process of data filtering, firms with a negative pre-tax income were removed from the sample because a negative income creates tax saving. ETR was recoded as follows. First, firms with negative tax expenses which produced a negative ETR were recoded as '0'. Second, firms with an ETR above 100%, that is the firms tax expense exceeded the pre-tax income were recorded as '100'. The process of data recoding was necessary since the ETR does not have any economic meaning and can distort the findings instrumentation-variables (Rohaya et al., 2010).
3. Firms with effective tax rate exceeds one (1) are also excluded from the sample consistent with previous studies (see for example, Gupta and Newberry, 1997; Kim and Limpaphayom, 1998; Singh, Wilder and Chan 1987; Stickney and McGee, 1982; Zimmerman, 1983). The effective tax rate of a firm may be greater than one for a number of reasons. One reason is that, in the process of consolidation within a group of firms, subsidiaries/associated firms with a net operating profit are combined with those subsidiaries/associated firms with net operating loss. Zimmerman's reason (1983) is that tax expense on an asset sold in prior year at a gain is recognized in the current period with the effect of distorting the numerator of the effective tax rate, but not the denominator. R again
4. Firms with a negative ETR were also eliminated from the sample. Whenever firms reported either loss/negative income (negative denominator) or tax refunds (negative numerator), the ETR will be negative. For both circumstances, the analysis of ETR will be distorted. Furthermore, when firms experienced book losses as well as tax refunds, ETR will be positive even though such firms pay no tax.

The final sample size was 286 firms. From the 286 sample-companies, 161 companies were among the top 500 MIDA tax incentives recipients in 2017 (TR companies) leaving another 125 sample-companies as non- tax incentive (Non TR) recipients. The summary of the sample is shown below.

Table 1: Summary of the Sample Selection

| Sample selection | No of companies |
|--|-----------------|
| SMEs Firms data from SSM | 365 |
| Less: Firms with net operating loss (or negative cashflow) | 31 |
| Less: firms with a negative pre-tax income | 26 |
| Less: Firms with effective tax rate exceeds one | 22 |
| Final sample | 286 |
| Firm-samples under top 500 MIDA tax incentives recipients (TR companies) | 161 |
| Firm-samples otherwise – non MIDA top 500 tax incentives recipients (TR companies) | 125 |

The Variables

The variables were as follows:

1. **Tax recipient firms (TRC):** Dummy proxy, (1) TR, (0) Non-TR
2. **Changes in Total Assets:** The change of Total Assets of Year 1 from Year 0
3. **Changes in Profit:** The change of Net Profit Before Tax of Year 1 from Year 0
4. **Leverage:** Measured by dividing the total debt at the end of the year by the total assets at the end of the year.
5. **Tax burden (Effective Tax Rate -ETR):** Defined as the ratio of current income tax expense divided by income before interest and taxes.

To test the Hypotheses of this study, the non-parametric Mann-Whitney U t-test was performed. The key requirement to perform parametric test is the need for a normal distribution. Homogeneity of variances is required for some of the parametric tests. The potential increase of Type 1 error is expected or increase the type II error if such assumptions are not satisfied which subsequently reduce power (1-probability of type II error). Therefore, the choice of statistical test, between parametric and non-parametric is made

based on relative to these errors (the central limit theorem). According to the central limit theorem, we can still perform parametric test if the original distribution of the data is not normal, but the sample size is relatively large.

Nonetheless, it is always about what is the threshold of the sample size considered to be large or small in order to apply the Central Limit Theorem. To date, the guideline is still unclear. Previous observations have noticed that, if the distribution closely resembles a normal distribution, the minimum sampling distribution required to match the normal distribution is around 5-10 sample size, while for other distributions, a sample size of at least 30 is required to match the normal distribution. However, in some extremely skewed distributions, sample sizes of 100,500 or 1000 or more are needed to achieve a normal distribution

As shown in Table 1, the data was not normally distributed and extremely skewed. Thus, the sample was not large enough to perform the Parametric t-test. The sample was divided into three categories, namely full sample and two sub samples (1) all firms with a positive change in profit and (2) firms with a negative change in profit

FINDINGS

Table 2 and Table 3 below show that there was a significant difference between changes of assets in the year which the firms had successfully been granted with tax incentives from non-recipient firms. Large positive changes in assets were reported by the firms without tax incentives as compared to those firms with tax incentives and the difference was significant. This implies that the non-tax incentive recipients are experiencing expansion in their capital expenditure and are not interested in applying for tax incentives. This seems to suggest that tax burden is less likely to be one of the important determinants in their economic decision especially on business expansion. This is consistent with Asiri et al., (2020) that found the firms' cash tax savings from avoidance activities are not efficiently used. Furthermore, firms that are experiencing small increase in assets, are those firms that are more likely to apply for tax incentive. This is to assist in promoting extra cash savings from the reduced tax burden and to allow the firms to further reinvest the cash in additional capital expenditure. However, consistent

with Green and Kerr (2016), they found that firms use cash tax savings from tax avoidance activities on new investments, At the same time they did not provide evidence as to whether this internally generated cash is used efficiently.

Table 2: Descriptive Statistics – T-test (All Sample)

| Statistics | | | | | |
|------------|---------|-------|---------------|--------------|-------|
| | DERATIO | ETR | Changesprofit | changesasset | L0gTA |
| N | 286 | 286 | 286 | 286 | 286 |
| Mean | 1373.58 | 13.20 | 358.56 | 29.38 | 7.95 |
| Median | 4.25 | 17.80 | -.95 | -2.99 | 8.28 |
| Skewness | 16.85 | -.94 | 6.50 | 7.94 | -.54 |
| Kurtosis | 284.67 | .45 | 133.60 | 73.85 | -.83 |

Table 3: Descriptive Statistics – T-test (All Sample)

| Group Statistics | | | |
|------------------|----|-----|-----------|
| | TR | N | Mean |
| DERATIO | 1 | 161 | 14.0609 |
| | 0 | 125 | 20.8010 |
| ETR | 1 | 161 | 13.1759 |
| | 0 | 125 | 13.2415 |
| Changesprofit | 1 | 161 | 730.4452 |
| | 0 | 125 | -120.4180 |
| changesasset | 1 | 161 | 8.2120 |
| | 0 | 125 | 56.6657 |
| L0gTA | 1 | 161 | 8.7042 |
| | 0 | 125 | 6.9743 |

Table 4: Non-Parametric Mann-Whitney U for all sample sets

| Hypothesis Test Summary | | | | |
|-------------------------|--|---|------|-----------------------------|
| | Null Hypothesis | Test | Sig. | Decision |
| 1 | The distribution of DERATIO is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .005 | Reject the null hypothesis. |
| 2 | The distribution of ETR is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .956 | Retain the null hypothesis. |
| 3 | The distribution of Changes in profit is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .585 | Retain the null hypothesis. |
| 4 | The distribution of changes in asset is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .247 | Retain the null hypothesis. |
| 5 | The distribution of TA is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .000 | Reject the null hypothesis. |

Asymptotic significances are displayed. The significance level is .050.

Hypotheses 1(a)(b)(c) and (d)- All Positive Change in Profit and All Negative Change in Profit Sample Sets

Additional tests were performed where the sample was separated between (1) all positive change in profit firms (increase in profit) and (2) all negative change in profit firms (decrease in profit) – samples; to better examine if firms' financial performance also determine tax incentive application/granted status. The results presented in Tables 4 and 5 represent a sample of firms experiencing only positive change (profit growth).

**Table 5: Descriptive Statistics – T-test
(All positive change in profit sample set)**

| Group Statistics | | | |
|------------------|----|----|-----------|
| | TR | N | Mean |
| ETR | 1 | 78 | 14.1309 |
| | 0 | 62 | 16.0956 |
| Changesprofit | 1 | 78 | 1631.7806 |
| | 0 | 62 | 1008.7673 |
| Changesasset | 1 | 78 | 3.1373 |
| | 0 | 62 | 91.4679 |

| | | | |
|---------|---|----|---------|
| LOGTA | 1 | 78 | 20.0671 |
| | 0 | 62 | 16.0657 |
| DERATIO | 1 | 78 | 20.7562 |
| | 0 | 62 | 18.6861 |

Table 6: All Positive Change in Profit -Hypothesis Test Summary

| | Null Hypothesis | Test | Sig. | Decision |
|---|--|---|-------------|-----------------------------|
| 1 | The distribution of ETR is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .137 | Retain the null hypothesis. |
| 2 | The distribution of Changes in profit is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .001 | Reject the null hypothesis. |
| 3 | The distribution of changes in asset is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .988 | Retain the null hypothesis. |
| 4 | The distribution of LOGTA is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .000 | Reject the null hypothesis. |
| 5 | The distribution of DERATIO is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .017 | Reject the null hypothesis. |

Asymptotic significances are displayed. The significance level is .050.

However, for the all-negative change (decrease in profit) firms' dataset as shown in Table 6 and Table 7, only e firms with a smaller negative profit change were successfully granted with tax incentives. These also suggested that reduced in profit performance may still be granted with tax incentives. However, if the profit performance dropped significantly, these firms may have a slimmer chance to be successfully granted with tax incentives if they applied. The overall findings suggest that consistent with the Economic Theory, the objective of tax cuts targeted by businesses is to assist firms to reduce the cost of doing business. However, tax incentive seems not to be the main factor in influencing new investments. Only firms that are experiencing small increase in assets are more likely to apply for tax incentive. This effort helps in promoting extra cash savings from the reduced tax burden. Thus, when business taxes are insignificant compared to other production costs, then this expected relationship may not occur.

Only if the costs associated with considering a tax increase surpass the possible benefit from the choice; is it illogical for a corporation not to consider its tax burden in their decision. As for the tax authority, firm performance measured as the firm's profitability may not be the main

determinant to approve and grant the tax incentives. However, as shown in Table 6 if the firm is experiencing a very huge negative change in profit, the tax authorities may not approve such incentives, if the firm had applied.

**Table 7: Descriptive Statistics – T-test
(All Negative Change in Profit Sample Set)**

| Group Statistics | | | |
|------------------|----|----|------------|
| | TR | N | Mean |
| ETR | 1 | 83 | 12.2784 |
| | 0 | 63 | 10.4327 |
| Changesprofit | 1 | 83 | -116.5928 |
| | 0 | 63 | -1231.6798 |
| Changesasset | 1 | 83 | 12.9810 |
| | 0 | 63 | 22.4159 |
| LOGTA | 1 | 83 | 20.0185 |
| | 0 | 63 | 16.0524 |
| DERATIO | 1 | 83 | 11.7969 |
| | 0 | 63 | 12.3435 |

Table 8: All negative change in profit -Hypothesis Test Summary

| | Null Hypothesis | Test | Sig. | Decision |
|---|--|---|------|-----------------------------|
| 1 | The distribution of ETR is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .167 | Retain the null hypothesis. |
| 2 | The distribution of Changes in profit is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .041 | Reject the null hypothesis. |
| 3 | The distribution of changes in asset is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .112 | Retain the null hypothesis. |
| 4 | The distribution of LOGTA is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .000 | Reject the null hypothesis. |
| 5 | The distribution of DERATIO is the same across categories of TR. | Independent-Samples Mann-Whitney U Test | .104 | Retain the null hypothesis. |

Asymptotic significances are displayed. The significance level is .050.

CONCLUSION

The results of this study contribute in various ways. First, this is the first study to our knowledge that has managed to make a comparison between

TR and non TR companies as Tax Recipient companies are not always observable. Next, the results of this study also imply that more firms are either not keen to apply for tax incentives, may not fully be aware on how to apply for the tax incentives or not actively engaged with economic activities with a tax incentive attached. On the other hand, to be successfully granted with tax incentives, should the firms apply, variation in profit performance seems not to be a very important determinant for the authority to grant the firms with tax incentives, except if the drop in the profit is significantly huge. This would imply that companies in the midst of a substantial economic expansion are likely neither interested in tax advantages nor dependent on the availability of tax incentives. Furthermore, the results also showed that in the year of tax incentives received, TR firms experienced higher expenses, as the cash savings and the effect of economic benefits from cash savings and/or reinvestment in capital expenditure resulting from the cash saving was yet to offset the tight cash flows from the investments. More interestingly, ETR cannot be distinguished from those with and without tax incentives. This seems to suggest that ETR could also be a result of tax avoidance activities, thus the effect of ETR by TR firms on profit performance was unobservable. Furthermore, it was also shown that variation in profit performance seemed not to be very important determinant for the authorities to grant firms with tax incentives except if the drop in the profit is significantly huge, especially within those firms with negative changes in profit. Thus, more awareness should be given to these firms to take this opportunity to participate in economic activities or assist them with the application process. It may allow them to be granted with associated tax incentives as a tool to boost the growth and the sustainability of the firm, and the overall national economy.

Our research however has some limitations. First, it would be beneficial to include SMEs from other countries in future studies. It would be interesting to examine if tax incentives (or tax management) awareness and its administration are different across different jurisdictions. Second, more variables of firm characteristics should also be included. Our dataset was taken from SSM and the availability of firm's characteristics was limited. Thus, it is suggested that future studies incorporate both qualitative and quantitative measures.

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