The purpose of this study is to examine the level of aggressive tax planning (ATP) among companies listed in the Access, Certainty, Efficiency (ACE) Market of Bursa Malaysia. On top of that, this study also investigates the relationship between company characteristics, ethnicity, and ATP. This study uses a balanced pooled sample of 105 firm years-observations for the period from 2014 to 2018. These samples were selected to provide new insight into this market and to explore the attitude of small firms toward ATP in Malaysia. The data was retrieved from DataStream and the downloaded annual reports. The finding shows that profitability and financial distress have a significant relationship with ATP. Other variables including size, capital intensity, inventory intensity, leverage, and ethnicity, were not determinants of ATP. The result in this study may assist the reader in understanding the nature of companies in the ACE market, particularly on its behavior toward tax planning. A strict requirement is needed to be adopted in the sample selection process, thus limiting the sample size. Further, since the previous study focused on large companies, the discussion of this paper will provide new insight into the nature of tax planning within the small- and medium-sized companies in Malaysia.

Keywords: Effective Tax Rate, Aggressive Tax Planning, Ethnicity, Financial Distress

JEL Classification Code: H25, H26, M41

1. Introduction

Taxpayers have used various tax planning strategies to minimize their pre-tax income and reduce their tax burden (Dhamara & Violita, 2018; Lazăr, 2014). Different terms, such as tax avoidance (Desai & Dharmapala, 2006), tax planning (Armstrong, Blouin, & Larcker, 2012), and tax management (Minnick & Noga, 2010), have been used in the past research to describe the strategies used to minimize the tax burden. To determine the level of the tax burden, most of the past studies used the effective tax rate (ETR) as a proxy to measure tax avoidance, tax evasion, and tax planning as well as tax aggressiveness (James, 2019; Salehi, Khazaei, & Tarighi, 2019; Vu & Le, 2021; Wahab, Ariff, Marzuki, & Sanusi, 2017).

The ETR is also commonly used as a measurement to calculate companies' tax burden and aggressive tax planning (Noor, Mastuki, & Bardai, 2008; Wahab et al., 2017). Therefore, the ETR can be said to be the most significant measure in determining the level of tax paid by companies (Delgado, Fernández-Rodríguez, & Martínez-Arias, 2018). The tendency to avoid and not pay taxes becomes greater when companies assume tax as a burden for them, leading them to be involved in ATP because the increase in tax burden will increase the amount of tax paid by the companies (Kwak & Park, 2020; Sadiarto, Hartanto, Natalia, & Octaviana, 2020). Therefore, it is crucial to determine the factors influencing the aggressiveness of a company’s tax planning because the company’s decision and strategies will affect its ETR, especially on investment and financing (Fernández-Rodríguez & Martínez-Arias, 2014).

Previous researchers have highlighted various factors that may contribute to ATP (Edwin & Victor, 2019; Higgins, Omer, & Phillips, 2015; Wahab et al., 2017). One of the factors that may
influence ATP is the company’s characteristics (Mohanadas, Abdullah, & Pheng, 2018). Studies on the relationship between tax planning and company characteristics are rich and varied where the results can be summarized as being significantly positive, negative, or insignificant (Fernández-Rodríguez & Martínez-Arias, 2014; Hazir, 2019; Mohanadas et al., 2018; Noor, Fadzillah, & Mastuki, 2010). The inconsistent results from the previous studies have become one of the motivations for conducting this research.

Further, as a limited number of studies have been devoted to small- and medium-sized companies, this study has focused on companies listed in the Access, Certainty, and Efficiency (ACE) Market. The ACE Market is one of the markets on Bursa Malaysia that serves and provides an opportunity for all small and medium-sized companies in all sectors to raise funds and be listed in the share market. Previously, the ACE Market was known as the Malaysian Exchange of Securities Commission (MESDAQ) Market. The ACE Market is similar to the Growth Enterprise Market (GEM) in Hong Kong and Catalyst in Singapore.

Thus, research on this issue remains inconclusive, and further work is needed to fill the gap. Realizing this, the main aim of this study is to identify the relationship between size, profitability, capital intensity, inventory intensity, leverage, financial distress and ethnicity with ATP in small and medium-sized companies. The objective of this study was twofold. The first was to determine the level of tax planning amongst companies listed in the ACE Market. The second was to examine the relationships between firm size, profitability, capital intensity, inventory intensity, leverage, financial distress and ethnicity with ATP amongst companies listed in the ACE Market.

This study has applied a few theories to support the discussion. The first theory is the agency theory, which relies on the mismatch between the interest of the management and the shareholders (Jensen & Meckling, 1976). In this study, the relationships between profitability, capital intensity, inventory intensity, leverage, and financial distress with ATP have been based on this theory. Second, the political power theory explains the relationship between the ethnicity of the BODs and ATP.

Further discussion in this study is structured as follows. Section 2 discusses the previous studies based on the variables investigated and develops research hypotheses, and section 3 elaborates on the research methodology. Section 4 discusses the results and section 6 concludes the study.

2. Literature Review

2.1. Aggressive Tax Planning (ATP)

ATP is defined as the downward management of taxable income through tax-planning activities, including legal and illegal activities, and activities that may fall into a grey area (Wahab et al., 2017). This definition is consistent with the previous unifying tax planning framework by Lietz (2013). The framework covers tax avoidance and the degree of tax aggressiveness by the taxpayers. According to Lietz (2013), tax avoidance includes all aggressive and non-aggressive activities of tax planning. The aggressiveness of tax planning will lead to grey-scale activities and, thereby, open an opportunity for tax evasion activities that are illegal. Due to this, ATP is found to maximize the complexity of the organizational structure and minimize transparency in financial reporting (Tec, Gul, Foo, & Teh, 2017). Previous researchers used various measures in determining the tax planning strategies used by companies, such as GAAP ETR, current ETR, cash ETR, and long-run cash ETR, which are calculated based on the estimates on the financial statement (Salihu, Obid, & Annuar, 2013). This study has utilized the differences between ETR and STR as the measurement of ATP.

2.2. Company Size and Tax Planning

Previous research demonstrates that the tax burden varies depending on the companies’ size (Wu, Wang, Luo, & Gillis, 2012). The relationship between company size and ETR has been widely investigated by previous studies, where again mixed results were reported. For example, a positive relationship has been reported, which explained that a larger size would pay a higher tax rate (Delgado, Fernandez-Rodriguez, & Martinez-Arias, 2014; Kraft, 2014; Noor et al., 2010). Meanwhile, a negative relationship was reported, which indicated that a larger company paid a lower tax rate (Adhikari, Derashid, & Zhang, 2006; Derashid & Zhang, 2003; Hadjidema, Stamatopoulos, & Eleftheriou, 2016); and an insignificant relationship was reported where there was no relationship between company size and payment of taxes (Hussin & Noor, 2012; Liu & Cao, 2007; Stickney & McGee, 1982). The variation in the results between company size and ETR can be described due to the political cost theory and political power theory (Fernández-Rodríguez & Martínez-Arias, 2014; Moreno Rojas, González Rodriguez, & Samper, 2017). The political cost theory suggests that a larger company will have a higher ETR because larger companies are more transparent to the government regulatory body (Wu, Wu, Zhou, & Wu, 2012). Whilst, the political power theory suggests that larger firms have the political power to lower their ETR due to the enormous resources they have to
engage in tax planning activities (Gupta & Newberry, 1997). From these considerations, this study has proposed that the larger the size, the higher the ETR; therefore, the lower the level of ATP activities. The first hypothesis is formulated as follows:

**H1:** There is a negative relationship between firm size and ATP.

### 2.3. Profitability and Tax Planning

There is also no uniformity in the relationship between profitability and ETR. In one cohort of studies, positive relationships were reported (Kim & Im, 2017; Moreno Rojas et al., 2017; and Yinka & Uchenna, 2018), indicating that companies that earn higher profits would have higher ETR. Theoretically, companies with higher profits will pay more taxes. In another cohort of studies, negative relationships were found, indicating that companies with higher profits have lower ETR (Adhikari et al., 2006; Kraft, 2014; Laguir, Elbaz, & Laguir, 2015; Pratama, 2017). The reason found behind this situation is that companies with higher profits focus more on tax planning and financial management activities (Elbaz, Laguir, & Staglian, 2015; Kraft, 2014). Based on these arguments, this study has proposed that the higher the profitability, the higher the ETR, therefore, the lower the level of ATP activities. The second hypothesis is formulated as follows:

**H2:** There is a negative relationship between profitability and ATP.

### 2.4. Capital Intensity and Tax Planning

Previous studies found mixed results between capital intensity and ETR. The negative results suggest that a company with a large property, plant, and equipment (PPE) will benefit from the deduction of capital allowance, thus lowering the amount of tax expense (Noor et al., 2010, 2008; Rashid, Noor, & Mastuki, 2015; Yinka & Uchenna, 2018). It also suggests that companies will benefit from other tax policies rather than just the deduction of capital allowance (Hazir, 2019; Vintilă, Gherghina, & Păunescu, 2018). The positive relationships suggest that companies with higher PPE will have higher ETR. The primary reason for the positive relationships might be the companies’ inability to manage tax deductions related to assets. From this discussion, this study has proposed that the higher the PPE, the lower the ETR; therefore, the higher the level of ATP activities. The third hypothesis is formulated as follows:

**H3:** There is a positive relationship between capital intensity and ATP.

### 2.5. Inventory Intensity and Tax Planning

Studies on the relationship between inventory intensity and ETR also found inconsistent results. Some of the studies found positive relationships, which suggest that a company that invests in high levels of inventory will pay higher ETR as no deduction is available for inventory (Hsieh, 2012; Noor et al., 2010; Ribeiro, Cerqueira, & Brandao, 2015; and Yinka & Uchenna, 2018). A negative relationship between inventory intensity and ETR was also found where the plausible explanation is that companies are unable to manage their resources in profitable investments, thus lowering their profits and consequently leading them to pay lower income tax rates (Hadjidema et al., 2016; Savitri, 2017). Regarding these considerations, this study has proposed that the higher the inventory level, the higher the ETR; therefore, the lower the level of ATP activities. The fourth hypothesis is formulated as follows:

**H4:** There is a negative relationship between inventory intensity and ATP.

### 2.6. Leverage and Tax Planning

The companies’ choice of capital structure will also influence the companies’ ETR (Graham, Hanlon, Shevlin, & Shroff, 2014). Companies that opt for equity financing would not enjoy any tax deductions on their dividend payments as compared to companies that choose debt financing, where interest expenses are tax-deductible (Ribeiro et al., 2015). In previous literature, there were inconsistent relationships between leverage and ETR. Some studies found positive relationships where a company faces higher leverage, resulting in a higher tax burden (Fernández-Rodríguez & Martínez-Arias, 2014; Gupta & Newberry, 1997). The negative relationships suggest that companies with higher leverage face lower tax burdens because of deductions on their interest expenses (Hadjidema et al., 2016; Nomura, 2017). Meanwhile, previous studies also found insignificant relationships between leverage and ETR (Minnick & Noga, 2010; Pratama, 2017; Vintilă et al., 2018). Based on the discussions, this study has proposed that the higher the leverage, the lower the ETR; therefore, the higher the level of ATP activities. The fifth hypothesis is formulated as follows:

**H5:** There is a positive relationship between leverage and ATP.

### 2.7. Financial Distress and Tax Planning

Companies under financial distress are willing to be involved in tax planning strategies that manage to help companies avoid and reduce tax payments.

3. Research Methodology

3.1. Sample Selection and Data Filtering

This study obtained the data from the Thomson data stream and annual reports of companies listed in the ACE Market from 2014 to 2018. Table 1 presents the statistics of the companies in the ACE Market, which reported negative tax, negative income, and zero income. The table shows that the companies in the ACE Market reported negative incomes with the highest percentage of 47% in 2018 and the lowest at 36% (2017). Further, these companies also reported negative tax expenses with the range between the minimum and maximum percentage of 11% (2017) and 20% (2016), respectively. These negative tax expenses may have been due to tax refunds and deferred tax credits (Noor et al., 2008). The highest percentage of 10% for companies that declared zero tax was in 2017 while it was 5% in 2018; this might have been due to the aggressive move by the government from the Special Voluntary Disclosure Programme campaign in 2018.

The sample of companies listed in the ACE Market was later filtered with the specific requirement, as shown in Table 2. After the data screening process, the final sample, which excluded the conditions stated in Table 2, comprised 21 companies with 105 observations that were valid for analysis. Data in this study were analyzed using SPSS and STATA software. This study winsorized the observations that fell in the top and bottom 5% of the dependent variables to mitigate the influence of outliers.

3.2. Empirical Model

The model used in this study as shown below was developed based on a prior study by Noor et al. (2008). The previous model used size, leverage, capital intensity, inventory intensity, foreign operation, and multinational companies for the empirical investigation and focused on companies listed in the Main Market (previously known as the mainboard and second board). For this study, foreign operation and multinational companies were excluded due to the sample companies listed in the ACE Market are considered as small and medium-sized companies, and their

Table 1: Percentage of Companies with Negative Tax, Negative Income, and Zero Tax Reported for the Years 2014 to 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm years</td>
<td>107</td>
<td>109</td>
<td>113</td>
<td>115</td>
<td>119</td>
</tr>
<tr>
<td>Negative tax</td>
<td>13%</td>
<td>18%</td>
<td>20%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Negative income</td>
<td>44%</td>
<td>40%</td>
<td>41%</td>
<td>36%</td>
<td>47%</td>
</tr>
<tr>
<td>Zero tax</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>
involvement in multinational activities is also considered low. Nevertheless, we included two new variables, which have not been widely investigated by previous studies, especially in Malaysia, namely ethnicity and financial distress, to determine the relationships with ATP. 

\[
ATP_{it} = \beta_0 + \beta_1 \text{SIZE}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{CAPIN}_{it} + \beta_4 \text{INVENT}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{FD}_{it} + \beta_7 \text{ETHNICITY}_{it} + \epsilon_{it}
\]

### 3.3. Variable Measurement

The definition of the variables and the sources of the data are presented in Table 3.

### 4. Results and Discussion

#### 4.1. Descriptive Analysis

Table 4 presents the descriptive statistics for all the variables used in this study from 2014 to 2018. The table shows the minimum, maximum, mean, and standard deviation for each variable investigated. The mean for ATP was 3%, which explained that the companies in the ACE Market paid their taxes at 3% lower than the statutory tax rate imposed by the IRBM, which suggests that the companies in the ACE Market are involved in tax planning activities. Based on the total assets, the smallest company size in this study was 4.3981, and the largest was 5.4860. The mean for the ROA shows that the companies in this sample earned a profit at an average of 9%. In terms of the investment in the PPE and inventory, the means for both variables were 27% and 9%, respectively. This result indicates two situations. Firstly, most of the companies in this study made higher investments in PPE compared to the inventory. Secondly, most of the companies in this study might have been from the service sector, which would have limited their investments in inventory. The mean for leverage was 9%, with a minimum value of 0.00 and a maximum value of 0.39. The mean of financial distress was 1.88, which indicated that most of the companies in this sample had unstable financial conditions. Altman (1968) interpreted companies with scores of 1.88 and below as being in the distress level. The mean ethnicity of 16% indicated that the number of Bumiputera acting as members of the BODs in this sample was lower compared to non-Bumiputera.
According to Gupta and Newberry (1997), the level of the ETR can be categorized into lower (0% to 10%), moderate (11% to 24%), and high (more than 24%). Concerning the first objective of this study; to determine the level of tax planning amongst companies listed in the ACE Market, Figure 1 presents the taxes paid by companies in the ACE Market. In this study, the companies that paid taxes lower than the STR were considered as practicing ATP. From the result, it was found that 61.90% of the companies in this sample planned their tax aggressively by paying tax rates less than the STR. From this total, 43% paid taxes in the range of 11% to 24%, and the remaining 19% paid taxes less than 10%. 38% of the companies in this study paid taxes more than 24%, indicating that they were involved in lower tax planning activities.

### Table 4: Descriptive Analysis for the Overall Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP</td>
<td>-0.3107</td>
<td>0.24</td>
<td>0.0320</td>
<td>0.1534</td>
</tr>
<tr>
<td>SIZE</td>
<td>4.3981</td>
<td>5.4860</td>
<td>4.8838</td>
<td>0.2804</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0019</td>
<td>0.2741</td>
<td>0.0978</td>
<td>0.0646</td>
</tr>
<tr>
<td>CAPIN</td>
<td>0.0089</td>
<td>0.6302</td>
<td>0.2679</td>
<td>0.1592</td>
</tr>
<tr>
<td>INVENT</td>
<td>0.0000</td>
<td>0.3736</td>
<td>0.0925</td>
<td>0.1017</td>
</tr>
<tr>
<td>LEV</td>
<td>0.0000</td>
<td>0.3865</td>
<td>0.0974</td>
<td>0.1089</td>
</tr>
<tr>
<td>FD</td>
<td>0.7304</td>
<td>3.5202</td>
<td>1.8833</td>
<td>0.6419</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.0000</td>
<td>0.7778</td>
<td>0.1608</td>
<td>0.2081</td>
</tr>
</tbody>
</table>

**Figure 1:** Percentage of the ETR Paid by Companies Listed in the ACE Market

4.2. Regressions Model

The second objective of this study was to examine the factors influencing ATP. This study used the panel data estimation method, which is the combination of time series and cross-sectional data. Thus, in this regression analysis, three analyses have been run to identify the best and appropriate model for this study. The three analyses were the Pool OLS (POLS), the random-effect (REM), and the fixed-effect (FEM) model. In order to choose the best model, the Breusch Pagan LM test was used to test which model was more appropriate between the POLS and REM. The null hypothesis (Ho) indicated that if the $P$-value was more than 0.05, then the POLS was more appropriate than the REM. The alternative hypothesis (H1) stated that the REM was
more appropriate than the POLS if the $P$-value was less than 0.05. From the analysis, the result shows that the $P$-value was 0.0000, less than 0.05 (Reject Ho); thus, the REM was better than the POLS. The Hausman test was used to determine whether the REM or the FEM was the best model. The null hypothesis (Ho) indicated that if the $P$-value was more than 0.05, then the REM was more appropriate than the FEM. The alternative hypothesis (H1) stated that the FEM was more appropriate than the REM if the $P$-value was less than 0.05. From the analysis, the result shows that the $P$-value was 0.0926, more than 0.05 (accept Ho; thus, the REM was better than the FEM. Thus, for this study, the best model was REM.

4.3. Regression Result

Table 5 presents the results of the three analyses used in this study. The regression model suggested that the random-effect model was more appropriate than the fixed-effect model for this study. Thus, the discussion of the study was based on the results of the RE model.

The result of the study found that profitability and financial distress have relationships with ATP. From the regression analysis, there is a positive and significant relationship between profitability and ATP, as shown in Table 5 (Beta = 1.2550, $P < 0.05$). The result indicates that a company with higher profits will engage in ATP activities to reduce the tax payment. Thus, the result of this study supports the agency theory. Besides that, the result of this study is consistent with a previous study conducted by Adhikari et al. (2006), Elbaz et al. (2015), Kraft (2014) and Pratama (2017).

Meanwhile, the relationship between financial distress and ATP indicates a negative and significant relationship, as shown in Table 5 ($Beta = -0.0936, P < 0.05$). The result demonstrates that a company that faces higher financial distress is not engaged in ATP, resulting in a hefty tax payment. The situation might be due to the company’s manager wanting to focus more on its performance rather than engaging in ATP to survive in the future (Abd Halim, Adiana, Abdullah, Nisham, & Mohd, 2018).

For other variables investigated in this study, namely size, capital intensity, inventory intensity, leverage, and ethnicity, there were no relationships between these variables with ATP. The result indicates that these variables are not significant factors that influence ATP in the Malaysian ACE Market companies.

5. Conclusion and Recommendations

This study examined the relationships between size, profitability, capital intensity, inventory intensity, leverage,
financial distress, and ethnicity with ATP. The result shows that profitability and the level of financial distress have significant relationships with ATP. The positive relationship between profitability and ATP indicates that a company in the ACE Market, which earns higher profits, pays a lower tax rate and exercises more planning to reduce the tax burden. Thus, the result of this study supports the assumption that companies are focusing more on tax strategies to reduce their income tax liabilities but not on income in their financial statement (Kraft, 2014). It can be assumed that companies listed in the ACE Market have proper strategies in managing their listed tax planning.

The second factor influencing ATP is financial distress where a negative and significant relationship was found between these variables. This relationship indicates that companies in a higher level of financial distress situations are not aggressively planning their taxes, which resulted in higher tax to be paid. Thus, the result of this investigation is not consistent with previous empirical studies which reported that the financial distress level would reduce companies’ tax burdens (Richardson et al., 2015; Tilehnoei et al., 2018). The negative direction might suggest that managers in these companies are risk-averse and reluctant to involve in risky and costly strategies. Meanwhile, other variables, such as the companies’ size, investments in PPE and inventory, leverage, and ethnicity of the BODs are not determinants of ATP.

Although this study shows some impressive results, it also has several limitations that can be overcome in future research. First, as only the small sample size was used in the analysis the results cannot be generalized to the overall population of companies in Malaysia, specifically to the larger size of firms. Covering both small and larger size of firms in future research may yield a better result on the relationships. Second, future research can consider other variables that are not included in this study. This study hopes may help the reader to have a deeper understanding of the nature and behaviors of the companies listed in the ACE Market toward tax planning. Besides, the finding of this study is believed may able to provide useful information to the academicians, government officials, and company managers in terms of the reconciliation of ETRs and tax planning.

References


