Impact of Company Characteristics on Tax Avoidance: A Study on Manufacturing Company in Indonesia during The Pandemic

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Abstract. This research aims to investigate the influence of various factors, such as profitability, leverage, company age, company size, and sales growth, on tax avoidance during the pandemic. The present research has adopted a quantitative approach to investigate a sample size of precisely 133 manufacturing companies registered on the Indonesia Stock Exchange within 2020-2021. The data has been collected through the Indonesian Stock Exchange website and is classified as the secondary type. The data analysis technique utilized in this study is the robust regression method, mainly due to the unfulfilled normal distribution assumption. The study's outcomes may prove valuable to individuals and establishments operating within the manufacturing and finance sectors. The present study findings lend support to the Agency Theory, which posits that the government, in its capacity as the principal, and taxpayers, as the agents, have competing interests. Taxpayers, in their efforts to avoid tax, tend to rely on certain fundamental characteristics, such as firm size, while disregarding other factors, such as profitability, leverage, firm age, and sales growth, as reasons for such avoidance.

Keywords: Profitability, Leverage, Age, Firm Size, Sales Growth, Pandemic, Robust Regression

1 Introduction

Taxes are a significant source of state income and are one of the primary revenues used to fund state development. In 2022, Indonesia's tax revenues exceeded expectations, reaching IDR 1,716.8 trillion - a growth of 34.3 percent compared to the previous year. This growth indicates that Indonesian taxation has begun to recover from the economic downturn caused by the COVID-19 pandemic. Despite the pandemic's challenges, the government had to revise the tax revenue target twice - on April 3, 2020, by issuing Presidential Regulation 54/2020, which set the new tax revenue target at IDR 1,254.11 trillion.

Indonesia has exceeded its tax revenue target for 2022. However, a report by the Tax Justice Network highlights significant tax losses suffered by the country. The Indonesian government's estimated tax loss amounts to US$2.806 billion or more than IDR 43.5 trillion, which is equivalent to 2.6% of the tax revenue target. This tax loss is higher than the regional average of 1.6%, indicating a significant loss of revenue.

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The primary purpose of a company is to maximize profits. While the government sees taxes as a source of state income, companies view them as a burden that could reduce earnings. Tax planning involves exploring various ways to work around tax laws so that businesses and individuals can minimize their overall tax liability. Tax avoidance, tax evasion, and tax saving are some methods companies employ to reduce their tax payments. Tax avoidance is a legal way to reduce taxes by complying with tax regulations while minimizing tax burden [1]. Many parent and subsidiary companies take advantage of tax avoidance by transferring profits to countries with lower tax rates, which helps reduce the company's taxes [2].

It is essential for companies to exercise prudence when undertaking tax planning to prevent any unlawful tax evasion. The deliberate misrepresentation of income or spending to lower tax liability is known as tax evasion, which is illegal and can result in high fines, penalties, and even criminal prosecution.

Based on previous research, there is empirical evidence supporting the claim that tax avoidance is influenced by several factors, including profitability ([3][4][5][6]), leverage ([5][7][8]), company age ([1][4][9]), size ([1][10]), and sales growth ([3][11][12][13]). The primary objective of this research is to comprehensively analyze the influence of various factors such as profitability, leverage, company age, size, and sales growth on the practice of tax avoidance during the pandemic.

2 Method

The focus of this research is on manufacturing companies that are listed in the Indonesian Stock Exchange for the years 2020-2021. To select the sample, the probability sampling technique was employed and grouped based on 19 sub-sectors in the manufacturing industry. The method used to categorize the population into sub-populations was disproportional stratified random sampling, which is based on the existing elements. Samples are selected from each subpopulation by simple random method or systematic method, which is considered the most efficient and relevant random sample selection method [14]. A total of 133 samples were selected for analysis in this study. This study's data came from the companies' annual reports, which are available on the Indonesia Stock Exchange's official website. (www.idx.co.id).

Tax avoidance refers to the legal measures that companies take to reduce their tax liability [15]. In this research, the main indicator used to measure the effectiveness of tax avoidance is the Effective Tax Rate (ETR), which represents the percentage of income tax paid by the company from its total income before tax. The formula to calculate ETR is::

$$ETR = \frac{Tax\ expense}{Income\ before\ tax}$$

Return on Assets (ROA) is the ultimate measure of a business's profitability, as it provides a clear insight into its ability to generate profits from its total assets [10]. The ROA ratio is calculated as follows:

$$ROA = \frac{Earning\ before\ tax}{Total\ Asset}$$

Leverage is a fundamental financial metric that confidently indicates the proportion of a company's total debt to its total assets. It plays a crucial role in guiding funding decisions made by companies [1].

$$Leverage = \frac{Total\ debt}{Total\ Asset}$$

The age of a company is a critical determinant of its ability to optimize operational activities and thrive amidst business competition [4]. Company age is measured as follows:

Age = Period of Research (year) – Listed on BEI (year)

Company size is an indicator shown through the total assets owned by the company. The total assets considered include fixed, intangible, and other assets [10]. Company size is formulated as follows:

SIZE = LN (Total Asset)

Sales growth indicates an improvement in performance through increased sales from the previous year. Increased sales are measured as follows:

$$Sales\ growth = \frac{Sales_t\ -\ Sales_{t-1}}{Sales_{t-1}}\ x\ 100\%$$

The present study employed robust regression analysis to process the data, as the model failed to conform to the normality assumption. In the event that outlier data is treated through OLS regression, it can significantly affect the regression power, resulting in an inadequate model. As a result, ignoring or removing outlier data from the observations is not a feasible solution, as such data represents a reality that must be accounted for. Thus, the current research utilized the robust regression analysis method to address the outlier problem effectively [16]. Robust regression is a good method for handling data with outliers or non-normal distributions. Outliers, which are values significantly different from other observations, can impact the model [17].

3. Results and Discussion

The companies observed in this research show relatively high levels of tax avoidance. The average value of corporate tax avoidance is -0.91, far below the tax rate that applies to corporations, which is 22%. The ideal ETR value should be close to the prevailing tax rates [18]. The current condition indicates that manufacturing companies in Indonesia have been unable to meet the prescribed tax rates during the fiscal year 2020-2021. This means that the low tax payments made by these companies were primarily due to the impact of the pandemic during that period. The Indonesian government introduced various tax incentives to support

these companies. The government's objective in offering tax incentives and tax holiday policies was to help taxpayers stay financially stable despite their tax obligations. These tax incentives aim to reduce the burden on taxpayers, as the pandemic has adversely affected the companies' performance.

Table 1. Robust Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0,352447	0,063385	-5,560404	0,0000
ROA	-0,159243	0,051268	-3,106092	0,0019
LEV	0,070505	0,021862	3,225018	0,0013
AGE	0,001291	0,000926	1,394912	0,1630
SIZE	0,005892	0,002317	2,542261	0,0110
SG	-1,88E-06	3,82E-07	-4,919276	0,0000
Robust Statistics				
R-squared	0,053622	*Adjusted R-squared*		0,035423
Rw-squared	0,226792	*Adjust Rw-squared*		0,226792
Akaike info criterion	486,4237	*Schwarz criterion*		511,1892
Deviance	12,84624	*Scale*		0,163989
Rn-squared statistic	45,16064	*Prob (Rn-squared stat.)*		0,000000
Non-robust Statistics				
Mean dependent var	-0,916727	*S.D. dependent var*		150,0402
S.E of regression	151,4781	*Sum squared resid*		5965863

The Robust Regression Model Feasibility Test in Table 1 shows that the Akaike Info Criterion value is 486.42. The Schwarz Criterion value is 511.18. The Standard Error of Regression value is 151.47. The standard deviation value of the ETR dependent variable is 150.04, which indicates that the Standard Error of Regression value is greater than the standard deviation of the ETR dependent variable, which means the regression model is still unsuitable for use. In other words, the predictions in the robust regression model still need to be improved.

The R-squared determinant Coefficient Test (R2) shows a value of 0.053622. This figure shows that the variation in the dependent variable ETR can be explained using the independent variables ROA, LEV, AGE, SIZE, and SG, amounting to 5.36%. In comparison, 94.63% is explained by variations in variables outside the model.

According to the Rw-Squared test, the dependent variable ETR can be explained to a certain extent by the independent variables ROA, LEV, AGE, SIZE, and SG. The test results show a figure of 0.2267, which means that these independent variables account for 22.67% of the variation in ETR. The remaining 77.33% is attributed to variations in other variables not included in the model.

The test results for the profitability variable show that the direction of the coefficient is -1.592 with a probability value level of 0.001 < 0.05. The coefficient of the profitability variable is negative, so it can be concluded that the hypothesis 1 (H1) that profitability positively affects tax avoidance is rejected.

The study's results reveal that the level of profitability does not significantly impact tax avoidance. The study indicates that a company's level of profitability does not have a direct correlation with its tax payments. The study asserts that the level of profitability has no influence on tax avoidance. Consequently, it can be inferred that there is no clear association between profitability and tax avoidance [5]. The agency theory posits that information asymmetry often leads to a fundamental problem between the principal and agent. Specifically, the agent may act in their own self-interest and disregard the principal's desires. However, recent research has produced results that are at odds with this theory. The findings suggest that a more optimal approach for companies to manage and utilize their profitability is to comply with the government or the tax authority as the principal and pay taxes accordingly. By doing so, companies can better navigate the complex landscape of regulatory compliance and ensure their long-term success. The present research findings are corroborated by the empirical evidence presented in the studies conducted by [5] and [7]. These studies demonstrate that profitability has no significant impact on tax avoidance practices. Thus, it can be inferred that firms may engage in tax avoidance irrespective of their level of profitability.

The test results for the leverage variable show that the direction of the coefficient is 0.070 with a probability value level of 0.001 < 0.05. The probability value level is <0.05, and the direction of the coefficient is positive, so it can be concluded that the hypothesis 2 (H2), which states that leverage has a negative effect on tax avoidance, is rejected.

It is imperative to note that the level of leverage a company uses does not influence tax avoidance. Leverage, in this context, refers to the company's operational activities using borrowed funds or funds with interest charges. It is not a viable benchmark to describe tax avoidance, and high or low leverage should not be used as a measure of tax avoidance. Instead, businesses or agents may strategically utilize leverage to align with their goals and interests, which may include various methods to avoid taxes. The approach companies take on leverage can be explained by agency theory, which aims to achieve an adequate balance between tax benefits and risk control. However, it is crucial to understand that, in this scenario, the level of leverage solely affects the company's funding and not its profit generation. The results of this research are supported by previous studies conducted by [19] and [20], which demonstrate that tax avoidance is not influenced by leverage.

The test results for the company age variable show that the direction of the coefficient is 0.001 with a probability value level of 0.163 > 0.05. The coefficient of the company age variable is positive, and the probability value is > 0.05, so it can be concluded that the hypothesis 3 (H3) that company age has a positive effect on tax avoidance is rejected.

Based on a study, it has been found that the age of a company does not have a positive impact on its propensity to avoid taxes. Despite the fact that the age of companies has been observed to increase over the years, it does not necessarily mean that they are more likely to evade taxes [9]. Rather, other factors play a more significant role in this regard. These findings are at odds with the agency theory, which proposes that a company or agent can enhance its overall performance by reducing its tax burden. This can be achieved by leveraging the resources available to the company, which inevitably become more adept over time due to the duration of

the company's operational tenure. Therefore, while the age of a company may not be a determining factor in its ability to avoid taxes, its resources and expertise can significantly contribute to maximizing its operational efficiency. The results of this research are supported by research conducted by [4] and [9], which shows that company age does not affect tax avoidance.

The test results for the company size variable show that the direction of the coefficient is 0.005 with a probability value level of 0.011 < 0.05. The coefficient of the company age variable is positive, and the probability value is <0.05, so it can be concluded that the hypothesis 4 (H4) that company size has a positive effect on tax avoidance is accepted. The results of this study indicate that company size has a positive effect on tax avoidance.

According to the research, the size of a company has a positive correlation with its inclination towards tax avoidance. Specifically, companies with higher total assets are more likely to engage in tax avoidance practices. This is due to the fact that larger companies tend to prioritize profit maximization and therefore seek ways to minimize their tax liabilities. As a result, with each increase in a company's total assets, the likelihood of engaging in tax avoidance also increases [7]. The findings of this research align with the agency theory, which posits that large companies have access to abundant resources that can be directed toward specific objectives. This suggests that a company's ability to utilize tax experts or consultants can significantly enhance its capacity to avoid taxes through tax avoidance. The company's agent, in this context, pursues the objective of maximizing its performance, which is achieved by reducing the tax burden and ultimately enhancing the company's overall profitability [4]. The research results indicate that larger companies tend to engage in more tax avoidance, which is consistent with the findings of previous studies conducted by [1] and [21].

The test results for the sales growth variable show that the direction of the coefficient is -1.880 with a probability value level of 0.000 < 0.05. The coefficient of the sales growth variable is negative. However, the probability value is <0.05, so it can be concluded that the hypothesis 5 (H5) that sales growth has a positive effect on tax avoidance is rejected.

The research findings have indicated that there is no positive correlation between sales growth and tax avoidance. Companies that experience an increase in sales growth may not necessarily achieve higher profits. This observation can be attributed to the fact that high sales growth also triggers an increase in expenses and costs, making the relationship between sales and profit growth non-linear. Therefore, it can be inferred that high or low sales growth does not have an impact on tax avoidance. [2]. In contrast to agency theory, where the agent focuses on maximizing company profits to increase their performance compensation, tax management aims to minimize the tax burden. Sometimes, increased sales growth could lead to a higher tax burden, which the agent tries to avoid. However, it's important to note that a company's net profit is what determines its tax liability, not just the sales growth rate. This means that even with increasing sales, a company's profit level may not necessarily increase. [22]. The results of this research are supported by research conducted by [22] and [10], which show that sales growth does not affect tax avoidance.

4. Conclusion

The size of a manufacturing company during the COVID-19 pandemic can impact its tax avoidance practices. Companies with large assets are better equipped to generate stable profits,

which can lead to an increased likelihood of engaging in tax avoidance to avoid a significant tax burden. According to agency theory, agents may seek to optimize their performance rewards by utilizing company resources, including reducing the tax burden to improve overall company performance. Interestingly, factors such as profitability, leverage, company age, and sales growth have little bearing on a company's propensity for tax avoidance.

Future research should consider other factors impacting tax avoidance, like firm value, audit committee, governance, and institutional ownership. Additionally, research should compare tax avoidance behaviors before and after the pandemic to develop more effective strategies to promote responsible corporate behavior.

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