The Effect of Gender Diversity and Tax Aggressiveness on Profitability in Mining Sub-Sector Companies listed on the IDX for the 2017-2022 Period

Aang Gunafi

1 Universitas Trisakti, jakarta, Indonesia

Corresponding Author: Aang Gunafi, E-mail: gunafi@yahoo.com

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ABSTRACT

The aim of this research was to investigate how gender diversity and tax aggressiveness impact the profitability of mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) from 2017 to 2022. The study encompassed a population of 75 such companies. Data collection was conducted through purposive sampling, and analysis employed multiple regression using the Eviews 8 software. The findings revealed that gender diversity did not have a significant effect on the profitability of mining sub-sector companies during the specified period. However, tax aggressiveness was found to have a positive impact on profitability within the same group of companies. Additionally, when considered together, gender diversity and tax aggressiveness were found to collectively influence profitability. It was also noted that 6.06% of the variability in profitability could be attributed to gender diversity and tax aggressiveness, while the remaining 93.94% was influenced by other unexamined variables.

INTRODUCTION

In today’s era of globalization, advancements in science and technology have led to rapid growth in global economic activities. Advances in science and technology have become a major driver in competition in business markets becoming increasingly fierce and dynamic, this forces every company to develop their capabilities on an ongoing basis and seek competitive advantage. In the midst of this challenge, companies are required to adapt to rapid changes and utilize innovation as the key to maintaining their position in a changing global market. As per Nuraini and Suwaidi (2022), a primary aim behind establishing a company is to generate profit and efficiently operate to accomplish the predetermined goals and objectives. To achieve maximum profit, companies must compete with other competitors and continue to improve operational performance to optimize profits.

The impact of this competition is felt by mining sub-sector companies. This can be seen from the average profit picture in the last 4 years mining sub-sector companies have experienced significant profit fluctuations, this can be seen in the figure below.
It is known that the average profit of mining companies from 2017 to 2022 experienced significant fluctuations. In 2017, the company's profit reached 718,273,741 million rupiah, but experienced a sharp decline the following year to 517,992,729 million rupiah. Then, there was a considerable spike in 2019, where profits increased to 1,327,110,657 million rupiah, signaling strong growth potential in the industry. The positive trend continued until 2020, where profits reached IDR 1,621,565,241 million, reflecting the favorable industry conditions at that time. However, in 2021, there was a sharp decline back to 854,679,664 million rupiah, which may have been influenced by various factors such as commodity price fluctuations or policy changes. Nonetheless, 2022 recorded another increase in profit, reaching 1,231,126,804 million rupiah, demonstrating the company's ability to adjust to market dynamics and obtain positive results.

Thus, significant profit fluctuations in recent years indicate that companies in the mining subsector should strengthen their strategies in managing risks, improving operational efficiency, and remaining responsive to changes in the business environment. Therefore, it is important for companies to assess their profitability as one of the indicators of good performance. Profitability is the expertise of a company to get profit or profit that can be related to sales, total assets, and own capital (Alifianda and Takarini 2020). Profitability is also an indicator of the industry's performance and expertise in creating profits by using its energy sources and wealth. A large level of profitability indicates that the company is able to work and carry out its operational activities optimally.

Gender diversity within a company's board of directors has been identified as a crucial factor positively influencing company performance and overall well-being (Dang et al., 2020). Increasingly, businesses are recognizing the strategic advantages of fostering an inclusive and gender-diverse leadership team. Moreover, research by Wisudanto et al. (2023) confirms the positive correlation between gender diversity and company profitability. This finding is further supported by Baselga-Pascual and Vähämäa (2021), who assert that higher levels of gender diversity in company management lead to enhanced company performance. In essence, the evidence suggests that greater gender diversity within a company translates to improved company performance.

Beyond gender diversity, another crucial factor impacting company profitability is tax aggressiveness. Tax aggressiveness, as described by Wayan (2022), involves manipulating a company's taxable profit through tax planning, employing legal (tax avoidance) or illegal (tax evasion) methods. Yuliani and Visiana (2022) elaborate that companies engaging in tax aggressiveness typically witness improvements in performance. For businesses, taxes represent a burden that diminishes profits, prompting them to pursue tax aggressiveness to bolster post-tax profits and consequently enhance company performance. Napitu and Kurniawan's (2016) research underscores the positive relationship between profitability and tax aggressiveness, a finding echoed by Yuliani and Visiana (2022), who emphasize the significant impact of tax aggressiveness on company performance. In essence, tax aggressiveness emerges as a critical determinant shaping company profitability and performance.

Drawing from observed phenomena and comparisons with prior research, this study aims to investigate the influence of gender diversity and tax aggressiveness on company profitability. The
overarching objectives include offering enhanced insights to financial statement users, regulators, and company management regarding the ramifications of gender diversity and tax aggressiveness on company profitability. Furthermore, the research endeavors to furnish valuable perspectives for business practitioners to inform strategic decisions pertaining to human resource management and tax policies. In essence, the study aspires to deepen comprehension of the interplay between gender diversity, tax aggressiveness, and company profitability, catering to a diverse array of stakeholders and fostering informed decision-making within the business landscape. So the researcher intends to conduct a study entitled "The Effect of Gender Diversity and Tax Aggressiveness on Profitability in Mining Sub-Sector Companies listed on the IDX for the 2017-2022 Period".

LITERATURE REVIEW

Profitability

Ali (2022) defines profitability as the capacity of a company to generate profits. Faradie and Ernandi (2021) elaborate that profitability refers to the depiction of a company's financial performance in generating profits from its business activities by effectively managing its assets. Essentially, profitability indicates the degree to which a company can generate revenue surpassing its operating expenses. This concept indicates the company's financial health and ability to create added value for shareholders and other stakeholders. Profitability can also be considered an important performance measure in evaluating the success of a business in achieving its financial and strategic objectives. Therefore, profitability is one of the key factors considered by company management, investors, and financial analysts in analyzing the health and business prospects of a company. Consequently, Sidik and Suhono (2020) propose a positive correlation wherein greater company profitability leads to increased profits. In this research, profitability is represented by the return on assets (ROA) ratio. The ROA ratio is computed by dividing net income by total assets. The formula for calculating the return on assets (ROA) ratio is expressed as follows:

$$\text{ROA} = \frac{\text{Net profit}}{\text{Total Assets}}$$

Gender Diversity

Gender diversity refers to the presence of both men and women in key leadership roles within a company. The inclusion of diverse genders can significantly influence decision-making processes and the formulation of corporate policies (Ziaul and Suryani, 2021). Women are often perceived to exhibit more cautious decision-making tendencies compared to men, who are typically viewed as pragmatic (Majidah & Muslih, 2019). The presence of women in a company holds importance as they can contribute to decision-making processes and occupy significant positions within the organization (Fauziah, 2018). ArfKen et al. (2004) elaborate that gender diversity within companies can yield various benefits, such as offering additional knowledge, generating new ideas, and providing insights to aid in problem-solving and strategic planning, thereby positively impacting company performance. Gender diversity is commonly assessed by determining the proportion of female representation on the overall board (Boussaidi & Hamed, 2015). The formula is as follows:

$$1 - \sum_{i=1}^{n} p_i^2$$

Tax Aggressiveness

According to Firmansyah and Triastie (2021: 20), Indonesia adopts a self-assessment taxation system, wherein companies calculate, pay, and report their tax obligations based on established tax regulations. This system provides companies with an opportunity to minimize their tax liabilities through tax avoidance strategies. Tax aggressiveness, as elucidated by Sari and Rahayu (2020), involves employing tax planning techniques to reduce tax payments, commonly referred to as tax avoidance. Wayan (2022) characterizes tax aggressiveness as a deliberate endeavor to manipulate a company's taxable profit through tax planning, utilizing both legal methods (tax avoidance) and illegal practices (tax evasion). The evaluation of tax avoidance in this study utilizes the Effective Tax Rate (ETR), a metric commonly employed in existing literature. A low ETR value may serve as an indicator of tax avoidance. The ETR formula can be seen below:
Based on the given description, the framework employed in this study can be summarized as follows:

![Research Framework](image)

With reference to the framework above, the hypotheses proposed in this study are:

H1 : Gender diversity has a positive effect on profitability
H2 : Tax aggressiveness has a positive effect on profitability
H3 : Gender diversity and tax aggressiveness simultaneously affect profitability.

RESEARCH METHODS

This research aimed to quantitatively analyze population attitudes by examining samples drawn from the population. It encompasses two independent variables, namely gender diversity and tax aggressiveness, along with one dependent variable, profitability. The study population comprises mining sub-sector companies listed on the Indonesia Stock Exchange spanning from 2017 to 2022, totaling 75 companies. Data collection was conducted through purposive sampling. The samples selected for this study are mining sub-sector manufacturing companies meeting the following criteria:

1. Mining sub-sector companies listed on the IDX for the period 2017 - 2022.
2. Mining sub-sector companies that consistently publish annual audit reports for the period December 31, 2017-2022.
3. Mining sub-sector companies that experienced positive profits during the period 2017-2022.

The study utilized secondary data extracted from financial reports and annual reports covering the timeframe from 2017 to 2022. These datasets were sourced from the Indonesia Stock Exchange website, particularly from www.idx.co.id. The analysis was conducted through multiple regression using Eviews 8 software. Before proceeding with the regression analysis, classical assumption tests were conducted, encompassing assessments for normality, multicollinearity, heteroscedasticity, and autocorrelation. The analytical steps comprised t-statistical test analysis, F-statistical test, and coefficient of determination (R²) test.

RESULTS AND DISCUSSION

The study relied on secondary data obtained from the financial statements of mining sub-sector companies listed on the IDX for the years 2017 to 2022. Presented below is a condensed table summarizing the methodology for sample selection:

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) in 2017 - 2022</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Companies that are not found periodic financial reports for 2017-2022 on the company's website and / or the IDX website.</td>
<td>(20)</td>
</tr>
</tbody>
</table>

Normality Test

The results of the normality test are outlined below:

The Jarque-Bera value of 145.6459, coupled with a probability value of 0.000000, indicates that the data in this research model is not normally distributed, as the probability value is lower than the significance level of 0.05.

Multicollinearity Test

The results of the multicollinearity testing are presented in the following table:

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Diversity</td>
<td>1.064040</td>
<td>No Multicollinearity</td>
</tr>
<tr>
<td>Agresivitas Pajak</td>
<td>1.064040</td>
<td>No Multicollinearity</td>
</tr>
</tbody>
</table>

Heteroscedasticity Test

The results of the heteroscedasticity testing in this study are summarized in the table below:

<table>
<thead>
<tr>
<th>Prob. Obs*R-squared</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1285</td>
<td>No Heteroscedasticity</td>
</tr>
</tbody>
</table>

The probability value (Prob) and the product of the number of observations and the R-squared value (Obs * R-squared value) amount to 0.1285, surpassing the significance level (alpha) of 0.05. Therefore, it suggests that there is no evidence of heteroscedasticity in the data under study.
Autocorrelation Test

The Breusch-Godfrey test, also known as the Lagrange Multiplier test, is utilized to detect autocorrelation. When the probability value exceeds the significance level (\(\alpha\)) of 5%, it implies the lack of autocorrelation. Conversely, if the probability value falls below the significance level (\(\alpha\)) of 5%, it indicates the presence of autocorrelation. The results of the autocorrelation test are outlined in the subsequent table.

<table>
<thead>
<tr>
<th>Prob. Obs* R-squared</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0000</td>
<td>Autocorrelation Occurs</td>
</tr>
</tbody>
</table>

According to these results, the probability value of Obs * R-squared is 0.0000, indicating significance at the 0.05 level. Consequently, it can be inferred that autocorrelation is present in the variables of the research model.

Multiple Regression Test

The classical assumption tests revealed violations of the normality and autocorrelation assumptions. As a consequence, regression analysis was carried out utilizing the Eviews software, utilizing the HAC Newey-West Test approach. This technique is utilized as a corrective measure in the presence of data heteroscedasticity or non-uniform data variance. The findings from the multiple regression analysis employing the HAC Newey-West Test in the study are displayed in the subsequent table.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.185256</td>
<td>-5.334798</td>
<td>0.0000</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>0.165359</td>
<td>1.084461</td>
<td>0.2800</td>
</tr>
<tr>
<td>Agresivitas Pajak</td>
<td>0.180025</td>
<td>3.538671</td>
<td>0.0005</td>
</tr>
</tbody>
</table>

The outcomes of the regression analysis utilizing the HAC Newey-West Test method performed in the study allow for the formulation of the following regression equation model:

\[
ROA = -0.185256 + 0.165359GD + 0.180025AP + \varepsilon
\]

Hypothesis Test

In this specific study, hypothesis testing was conducted to determine whether to accept or reject hypotheses. This process involved performing partial hypothesis testing through t-tests, F-tests, and evaluating the coefficient of determination (\(R^2\)).

Test t

The decision to accept or reject the hypothesis is determined by the significance level of the p-value, as outlined below:
- If the p-value (significance) > 0.05, the research hypothesis is rejected.
- If the p-value (significance) < 0.05 then the research hypothesis is accepted

Based on the results of partial hypothesis testing (t test) in the previous table, conclusions can be drawn:

Hypothesis 1: Gender diversity positively impacts profitability.
The coefficient beta value for the gender diversity variable in relation to profitability exhibits a positive direction of 0.165359, with a probability value of 0.2800, which is greater than 0.05. Consequently, the initial hypothesis is refuted. This indicates that gender diversity does not influence profitability in mining sub-sector companies listed on the IDX during the period of 2017-2022.
Hypothesis 2: Tax aggressiveness positively impacts profitability.
The coefficient beta value for the tax aggressiveness variable concerning profitability reveals a positive direction of 0.180025, with a probability value of 0.0005, which is less than 0.05. Consequently, the second hypothesis is upheld. This suggests that tax aggressiveness exerts a positive influence on profitability in mining sub-sector companies listed on the IDX during the period of 2017-2022.

F test
The F-test, also called the Simultaneous Test, is used to assess whether the combined impact of all independent variables on the dependent variable is significant. The results of the F-test are displayed in the table below.

<table>
<thead>
<tr>
<th>Gender diversity and tax aggressiveness simultaneously on profitability</th>
<th>0.004805</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Results of Data Processing with Eviews 8 (2024)</td>
<td></td>
</tr>
</tbody>
</table>

The results of the F-test in this study indicate a probability value of 0.004805, which is less than 0.05. Consequently, the third hypothesis is accepted. These findings imply that gender diversity and tax aggressiveness collectively influence profitability in mining sub-sector companies listed on the IDX for the period 2017-2022.

Determination Coefficient Test
The outcomes of the coefficient of determination test in this study are presented below:

<table>
<thead>
<tr>
<th>Adjusted R-squared</th>
<th>0.060608 (6.06%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Data Processing Results with Eviews version 8 (2024)</td>
<td></td>
</tr>
</tbody>
</table>

According to the provided table, the R-square value stands at 0.060608. This indicates that approximately 6.06% of the variability in profitability can be attributed to the gender diversity variable and tax aggressiveness. The remaining 93.94% of the variability is presumably influenced by factors not considered within the scope of this study.

Discussion
The analysis of the initial hypothesis indicates that gender diversity does not have a noticeable impact on the profitability of mining sub-sector companies listed on the IDX from 2017 to 2022. This implies that despite the presence of gender diversity at managerial levels or within the organization, it does not directly contribute to improved profitability. These findings are consistent with prior research conducted by Hartono and Malelak (2018), which similarly concluded that gender diversity does not show a significant correlation with Return on Assets (ROA). This lack of correlation is attributed to the unclear relationship between the gender composition of company leadership and profitability, as demonstrated by this study.

The outcomes of the second hypothesis examination reveal that tax aggressiveness has a favorable impact on the profitability of mining sub-sector companies listed on the IDX between 2017 and 2022. These findings suggest that the adoption of tax avoidance tactics by these companies can potentially bolster their profitability. Essentially, the endeavors of mining sub-sector firms to mitigate their tax liabilities can lead to substantial financial advantages. By lessening the tax burden, companies can generate more revenue that can be allocated for further investment in their operations. These results are consistent with the findings of a study conducted by Yuliani and Visiana (2022), which highlighted the significant influence of tax aggressiveness on company performance. Moreover, research conducted by Puspita and Putra (2021) supports these findings by indicating a
noteworthy positive relationship between profitability, measured through ROA, and tax aggressiveness.

The findings from testing the third hypothesis indicate that both gender diversity and tax aggressiveness collectively influence the profitability of mining sub-sector companies listed on the IDX during the 2017-2022 period. This suggests that a combination of having diverse gender representation in management along with a moderate tax strategy can confer a competitive edge by enabling companies to make more informed and financially sustainable decisions. These results align with the conclusions drawn from a study by Miharja et al. (2023), which observed that having a more diverse gender composition in both democratic and structural aspects tends to enhance the ability to offer superior advice and oversight, thereby improving company performance. Additionally, Yuliani and Visiana (2022) elucidate that one of the motives behind companies employing tax aggressiveness is to amplify after-tax profits, consequently impacting company performance.

CONCLUSIONS AND SUGGESTIONS

Conclusion

The analysis of the test results indicates that gender diversity does not have a significant impact on the profitability of mining sub-sector companies listed on the IDX between 2017 and 2022. Despite the presence of gender diversity in management or across the organization, it does not directly contribute to increased profitability. On the other hand, tax aggressiveness demonstrates a positive association with profitability in these mining sub-sector companies during the same period. This suggests that employing tax avoidance strategies can potentially boost company profitability. Moreover, when considering both gender diversity and tax aggressiveness together, they collectively influence the profitability of these companies. This implies that a combination of gender diversity at the managerial level and a moderate approach to tax strategy can offer a competitive advantage, facilitating better decision-making and improved financial sustainability. It's worth noting that only 6.06% of the variability in profitability can be attributed to gender diversity and tax aggressiveness, while the majority, 93.94%, is influenced by other variables not studied here.

Suggestion

It is advisable for companies aiming to enhance their competitiveness and meet stakeholder expectations to prioritize transparency and comprehensive reporting. This entails providing clear and detailed information regarding their initiatives concerning gender diversity, tax strategies, as well as overall financial and non-financial performance. Investors are encouraged to conduct thorough fundamental analyses before investing in companies. This entails scrutinizing financial statements, operational performance, capital structure, and growth potential. Given that this research solely focuses on the mining sub-sector companies, further studies are recommended to broaden the scope of observations. This would enable the findings from this study to be more widely applicable and representative. Additionally, future research should consider extending the duration of the study period and incorporating a wider range of variables beyond those examined in this study. Factors such as company size, leverage, liquidity, among others, could be explored as potential influencers of company profitability.

REFERENCE


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