Abstract: This study aims to analyze the internal and external roles of tax minimization of mining companies in Indonesia. There are 167 data sourced from the results of purposive sampling of mining companies listed on the Indonesia Stock Exchange in 2009-2019 by analyzing using SPSS software and finding that capital intensity ratios, institutional ownership, and independent commissioners individually encourage companies to minimize corporate taxes, while ownership managerial no. Separately, the external push is stronger than the company's internal drive to minimize corporate taxes. The results of this study can be input for regulators in Indonesia in analyzing the level of taxpayer compliance so that state revenues are achieved, especially corporate income taxes from mining companies.

Keywords: Tax Minimization, Capital Intensity Ratio, Managerial Ownership, Institutional Ownership, Independent Commissioner

1. Introduction

Taxes are state revenues that are used for the prosperity of the people (Novianti, et al., 2019), so the Government is trying to increase tax revenues. As for companies, taxes are a burden that reduces profits so many companies do tax minimization. For this difference, tax revenue in Indonesia has never been achieved, one of which is tax revenue from mining companies which in 2019 experienced a significant decline. One of the tax cases of mining companies in Indonesia is the case of the Bakrie Group which is in high tax arrears. Many factors encourage companies to minimize taxes, either because of internal or external encouragement. Internal encouragement such as capital intensity ratio and managerial ownership. Companies with large amounts of assets will have a lower tax burden than companies with smaller assets because they benefit from the depreciation expense borne by the company (Putri & Lautania, 2016; Kalbuana, et al., 2020) so that the capital intensity ratio is used by companies to minimize the tax burden. Another internal role is managerial ownership, where managers who function as managers of the company also have shares in the company so that there is a tendency for subjectivity in management. Lestari, et al. (2016), Putri & Lautania (2016) in their research explains that when managerial ownership in a company is high, managers tend to maximize firm value and encourage profit manipulation including increasing profits and reducing the tax burden. External roles are also suspected to have an important role in encouraging companies to minimize taxes. Institutional investors have a high level of control over management actions that can minimize the potential for management to commit fraud that is detrimental to shareholders. Investors want the highest profit to receive high dividends as well (Ardyansah & Zulaikha, 2014). For this reason, investors intervene for management to carry out tax planning so that the company's tax burden is low and company profits are high. Lestari, et al. (2016), Khan, et al., (2017) found the effect of institutional ownership on companies in minimizing the tax burden. However, other studies did not find the effect of institutional ownership on management in minimizing taxes (Waluyo, 2017; Fitrina, 2018). Law number 40 of 2007 in Indonesia explains the importance of the role of an independent commissioner for companies (Setiawan & Al-Ahsan, 2016). The supervisory function of independent commissioners has an important influence on the company, so that management acts under the company's objectives including tax minimization (Tarmidi, et al., 2020).

Based on this background, the researcher wants to analyze the internal role of the company, namely the capital intensity ratio and managerial ownership, and the role of external parties, namely institutional ownership and independent commissioners. Sensitivity test in analyzing which role is higher between internal roles and external roles makes this research unique from other studies.
2. Literature Review

2.1. Agency Theory

Agency theory (Jensen & Meckling, 1976) explains that an agency relationship is a contract in which one or more persons (principles) involve another person (agent) to perform some service on their behalf which involves standard provisions in decision-making authority for agents. Agency theory is a theory that connects the party who manages the company (agent) with the party who owns the company (principal) with a certain contract that has been mutually agreed upon. This contract provides certainty that the agent makes every effort and provision for the benefit of the principal. External parties, both owners and supervisors, have a vision for business continuity and expected profits, while management as an internal party has responsibilities in managing the company, including in carrying out tax rights and obligations. The difference in vision and mission can cause information asymmetry between internal and external parties.

2.2. Conceptual Framework and Hypothesis Development

In agency theory, the depreciation of a company can be used by managers to reduce the amount of the company's tax burden. Managers will invest idle company funds by investing in fixed assets, to obtain profits in the form of depreciation arising from these fixed assets which can be used as a deduction from the company's tax burden. By taking advantage of the depreciation of an asset, managers can improve company performance to achieve the expected manager performance compensation. This shows that the higher the capital intensity ratio owned by the company, the lower the tax burden. This is due to taxation preferences related to investment in fixed assets. Research conducted by Putri & Lautania (2016), Lestari, et al. (2016), Kalbuana, et al. (2020) found that a high capital intensity ratio can reduce the company's tax burden.

H1. High capital intensity ratio influences on high tax minimization

If the company is also owned by the manager, the manager as the manager of the company will take policies in increasing company profits including minimizing the tax burden so that dividends to owners are also high (Mahenthiran & Kasipillai, 2017). Deaf, et al. (2021), Niandari, et al. (2020), Putri & Lautania (2016) add that when there is managerial ownership in a company, managers will make efforts to maximize the value of the company and encourage it to increase profits and reduce the tax burden.

H2. High managerial ownership influences high tax minimization

The institutional ownership of the shareholders can optimize the supervision of management performance by monitoring every decision taken by the management as the manager of the company. Shleifer & Vishney (1986) argue that institutional ownership, with large shareholdings and voting rights, can force managers to focus on company performance and avoid opportunities to prioritize their interests. that the company makes decisions that will maximize shareholder wealth. The greater the proportion of shares owned by institutions, the supervision of management will also increase. This makes shareholders will try their best to direct the company to minimize its tax burden so that the investment profit received is also high (Jiang, et al., 2021; Khan, et al., 2017, Wulandari & Septiari, 2016).

H3. High institutional ownership influences on high tax minimization

Independent commissioners as external parties do not have a relationship with management or shareholders in carrying out their duties, so they can monitor the company's performance properly and neutrally without getting intervention from any party. The existence of higher independent commissioners can provide strict supervision of management performance, and management performance is generally indicated by high operating profit, so that management is encouraged to stabilize operating income or increase it, one of which is to minimize the tax burden. Tarmidi, et al. (2020) in their research found a significant relationship between independent commissioners and the company's tax burden. This is related to the supervisory function of independent commissioners on company policies.
H4. High independent commissioner amount influences on high tax minimization

3. Methodology

3.1. Population and Sample

Mining companies listed on the Indonesia Stock Exchange from 2009 to 2019 are the population of this study, with purposive sampling, 167 data were obtained which were analyzed using SPSS software.

3.2. Operational Variable

Tax minimization is the dependent variable in this study measured by reducing the statutory tax rate with the effective tax rate (Jamei, 2017). When the reduction results get a positive value, it explains the higher the company's policy in minimizing taxes, and vice versa.

Capital intensity ratio is the ratio between fixed assets to total assets that describes the size of the company's assets invested in the form of fixed assets needed by the company to operate which is expressed in percentage terms (Ardyansah & Zulaikha, 2014).

Managerial ownership is the proportion of share ownership by the board of directors, management, commissioners, or any party who actively participates in the company's decision-making. Adopting Sugiarto (2014), managerial ownership is measured according to the proportion of share ownership owned by managers with the number of company shares.

Institutional ownership is the proportion of shareholders owned by institutional owners such as insurance companies, banks, investment companies, and other ownership except for subsidiaries and other institutions that have special relationships. Companies with large institutional ownership (more than 5%) indicate their ability to monitor management so that the greater the voting power and encouragement from the institutional side to oversee management, the greater the incentive to maximize the value of the company. This measurement of institutional ownership adopts Waluyo (2017) and Sugiarto (2014) by dividing the proportion of share ownership owned by the institution by the number of company shares.

Independent commissioners are tasked and responsible for ensuring that the company has an effective business strategy (monitoring schedules, budgets, and strategy effectiveness), comply with applicable laws and regulations, and ensures that the principles and practices of good corporate governance are adhered to and implemented properly (Handayani & Rachadi, 2015). The board of commissioners as an organ of the company is collectively tasked and responsible for supervising and providing advice to the Board of Directors and ensuring that the company has implemented good corporate governance. Independent commissioners in this study were measured by comparing the number of independent commissioners with the total number of members of the board of commissioners owned by the company.

3.3. Hypothesis Testing Method

Data analysis was performed using SPSS software by first classical assumption tests such as normality tests, heteroscedasticity tests, multicollinearity tests, and autocorrelation tests. Then performed the F test and r-square and t-test.

4. Result

4.1. Descriptive Statistics

There are 167 data analyzed in this study, after conducting purposive sampling on mining companies listed on the Indonesia Stock Exchange in 2009 - 2019.
Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMIN</td>
<td>-0.07820</td>
<td>0.13915</td>
<td>-0.49865</td>
<td>0.23524</td>
</tr>
<tr>
<td>CIR</td>
<td>0.31094</td>
<td>0.17927</td>
<td>0.00517</td>
<td>0.79781</td>
</tr>
<tr>
<td>MAN</td>
<td>0.13379</td>
<td>0.16642</td>
<td>0.00000</td>
<td>0.68170</td>
</tr>
<tr>
<td>INS</td>
<td>0.56553</td>
<td>0.27326</td>
<td>0.00718</td>
<td>1.00000</td>
</tr>
<tr>
<td>IND</td>
<td>0.45316</td>
<td>0.13550</td>
<td>0.20000</td>
<td>0.66667</td>
</tr>
</tbody>
</table>

Table 1 explains that the unit of analysis in this study has an average tax minimization value of -0.07820, which means that the amount of tax on mining companies on average does not perform tax minimization because the ETR value is above the statutory tax rate. From the average value of the capital intensity ratio, it is known that the number of fixed assets in mining companies is quite large, namely 31% of the company's total assets. On average, the proportion of shares owned by managers in the unit of analysis is 13% while the proportion of shares owned by institutions in the unit of analysis is 56%, this indicates that external factors are thought to have a stronger influence than internal factors. Apart from high institutional ownership, the proportion of independent commissioners in the unit of analysis is also quite high at 45%.

4.2. Hypothesis Test

The classical assumption test conducted found that the research data was normal and fit and free from multicollinearity, heteroscedasticity, and autocorrelation problems. With an F-test value of 0.000 and an adjusted r-square value of 16.2%, it explains that the research data is fit.

Table 2. Main Hypothesis

TMIN = α + β1CIR + β2MAN + β3INS + β4IND + e

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Expected</th>
<th>Coefficient</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIR</td>
<td>+</td>
<td>0.191</td>
<td>0.001***</td>
</tr>
<tr>
<td>MAN</td>
<td>+</td>
<td>-0.112</td>
<td>0.087*</td>
</tr>
<tr>
<td>INS</td>
<td>+</td>
<td>0.173</td>
<td>0.000***</td>
</tr>
<tr>
<td>IND</td>
<td>+</td>
<td>0.156</td>
<td>0.044**</td>
</tr>
</tbody>
</table>

N 167
R² 16.2%
Prob. F 0.000***

With a significance value less than 0.05 and a positive coefficient value in Table 1, it indicates that high Capital Intensity Ratio, Institutional Ownership, Independent Commissioners individually impact on high tax minimization, while Managerial Ownership is not. These results also answer the research hypothesis where H1, H3, and H4 are accepted, while H2 is rejected.

The results of Hypothesis 1 show that the high capital intensity ratio has an impact on the high tax minimization. These results prove that companies that have high fixed assets have the opportunity to minimize the tax burden by recognizing the depreciation expense of these assets. The results of this study are in line with Efrinal & Chandra (2020), Kalbuana, et al. (2020), Lestari, et al. (2016), Putri & Lautania (2016) who found that a high Capital Intensity Ratio can reduce the company's tax burden.

The results of Hypothesis 2 show that managerial ownership does not affect tax minimization. The results of this study indicate that as the owner and manager of the company, the manager has the same interests as the company,
namely increasing the efficiency and competitiveness of the company, therefore managers must reduce costs as optimally as possible including tax costs. But on the other hand, managers also have responsibilities as company managers or taxpayers so that every tax policy taken can lead to tax laws that are considered scary. The results of this study explain that managerial ownership in this study is not able to make savings to pay tax obligations. This result is in line with the research by Yensi & Sandra (2019), Wulandari & Septiari (2016) which did not find the effect of managerial ownership on tax minimization.

The results of the third hypothesis show that the higher the proportion of institutional ownership in the company has an impact on the high level of tax minimization. These results explain that as an institution, company owners want high profits from investment activities to encourage company management to optimize profits, one of which is by minimizing the tax burden. These results are in line with Jiang, et al. (2021), Khan, et al. (2017), Wulandari & Septiari (2016) who also found the effect of institutional ownership on the company's tax burden.

The results of the fourth hypothesis find that the high proportion of independent commissioners has an impact on high tax minimization. These results prove that independent commissioners who have a supervisory function focus on management performance outputs rather than on management policy processes such as tax policy. In carrying out its functions, the independent commissioner considers that the company's performance is good if the company has high profits so that it encourages management to minimize taxes which are the company's burden. This result is in line with Tarmidi, et al. (2020) who found the effect of independent commissioners on the company's tax burden.

4.3. Sensitivity Test

A sensitivity test was conducted to strengthen the results of research in analyzing the role of which party is stronger between internal and external parties in encouraging management to take action to minimize the tax burden.

Table 3. Sensitivity Test

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Internal Coefficient</th>
<th>Sig.</th>
<th>External Coefficient</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIR</td>
<td>0.164</td>
<td>0.006***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAN</td>
<td>0.000</td>
<td>0.996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INS</td>
<td></td>
<td></td>
<td>0.142</td>
<td>0.000***</td>
</tr>
<tr>
<td>IND</td>
<td></td>
<td></td>
<td>0.121</td>
<td>0.116</td>
</tr>
<tr>
<td>N</td>
<td>167</td>
<td></td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>4.4%</td>
<td></td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>Prob. F</td>
<td>0.024**</td>
<td></td>
<td>0.000***</td>
<td></td>
</tr>
</tbody>
</table>

TMIN = tax minimization, CIR = capital intensity ratio, MAN = managerial ownership, INS = institutional ownership, IND = independent commissioner

*** significant at α = 1%, ** significant at α = 5%, * significant at α = 10%

The results of the sensitivity test in table 3 explain that the encouragement of external parties is higher on management in minimizing the tax burden compared to the encouragement of internal parties. With an R-Square value of 9.1%, external parties consisting of institutional ownership and independent commissioners have greater influence than internal parties consisting of capital intensity ratios and managerial ownership with an R-Square value of 4.4%. The impetus for management to minimize taxes can be caused by various things outside of this research.

5. Conclusion

This study found the following results:

a. The high capital intensity ratio impact on high tax minimization
b. Managerial ownership don't impact tax minimization
c. The high of institutional ownership impact on high tax minimization

d. The high amount of independent commissioner impact on high tax minimization

6. Implication and Limitation

The results of this study found that the capital intensity ratio, institutional ownership, and independent commissioners influence encouraging management to minimize taxes, this can be an input for the Government in monitoring taxpayer compliance so that state revenues from taxes are on target. The absence of the effect of managerial ownership on tax minimization can encourage further researchers to analyze other factors that are thought to encourage management to minimize corporate taxes. The number of mining companies on the Indonesia Stock Exchange is indeed small, so the data analyzed in this study is also not much, further research can replace other different units of analysis to get mixed results so that the Government as a regulator gets more input in the aim of increasing state revenue.

Reference