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Factors Influencing Tax Aggressiveness in Manufacturing Companies in Indonesia: An Analysis of Corporate Social Responsibility, Leverage, and the Moderating Role of Good Corporate Governance.

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ABSTRACT

This research examines the determinants of tax aggressiveness in Indonesian manufacturing firms, with particular emphasis on Corporate Social Responsibility, leverage, and the moderating role of Good Corporate Governance. Tax aggressiveness is understood as the strategies adopted by firms to reduce their tax liabilities, which may involve both lawful practices and those bordering on illegality. Evidence from recent years highlights a decline in Indonesia's tax ratio, illustrating how tax aggressiveness can erode government revenue. A quantitative method is applied in this study, utilizing panel data from manufacturing companies listed on the Indonesia Stock Exchange for the 2020–2022 period. The results reveal that CSR is positively associated with tax aggressiveness, though the relationship is statistically insignificant. Leverage, on the other hand, exerts a positive and significant influence, while liquidity is also found to positively contribute to tax aggressiveness. On the other hand, independent commissioners moderated by CSR exhibit a negative but not significant influence. This study provides important insights for companies and regulators. Companies need to manage tax strategies ethically, and regulators should enhance oversight of tax aggressiveness practices. This research is expected to provide an empirical basis for better policymaking and encourage companies to use CSR as a tool to enhance tax compliance rather than disguise tax aggressiveness.

INTRODUCTION

Tax aggressiveness is broadly understood as the approaches firms adopt to minimize their tax obligations, whether through lawful tax avoidance practices or by engaging in unlawful tax evasion. This phenomenon continues to pose major challenges for tax regulators across many nations. In Indonesia, particularly in the manufacturing sector, tax aggressiveness negatively impacts state revenue and diminishes the government's ability to finance public goods and services. According to data from the Organisation for Economic Co-operation and Development (OECD) in 2019, Indonesia's tax ratio was

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recorded at only 10.7%, down from 11.7% in 2017, and significantly lower than the average of OECD member countries, which reached 34.2% (OECD, 2020; CNBC Indonesia, 2019). This decline is largely attributed to the tax aggressiveness practices employed by companies, especially in the manufacturing sector, which seek to minimize tax burdens through various tax avoidance strategies. This phenomenon not only threatens state revenues but also creates fiscal injustice and undermines the reputation of Indonesia's capital market (Hendrilestari et al., 2023).

The latest data shows that Indonesia's tax ratio in 2024 has decreased to 10.08% of GDP, which is contrary to the government's target of increasing tax revenue as a primary source of national income (Kurniati, 2022). This decline is largely influenced by increasingly aggressive tax practices, including tax avoidance through transfer pricing and thin capitalization (Putri et al., 2019). Dewi & Cynthia (2018) state that tax aggressiveness leads to significant fiscal losses, which affect the country's ability to finance development and provide public services. Tax aggressiveness is a complex issue with a significant impact on a country's economy. In Indonesia, this phenomenon is evident from a fluctuating and generally declining tax ratio. The tax ratio, a comparison of tax revenue to the GDP, serves as an indicator of overall tax compliance. A decrease in this ratio can suggest that more companies are engaging in aggressive tax practices, which ultimately reduces state income and can hinder national development.

Corporate Social Responsibility (CSR) is one of the important aspects that influence corporate tax behavior. Several empirical studies indicate that extensive CSR disclosure can lead to an increase in tax aggressiveness, which has the potential to create a paradox between social reputation and aggressive tax practices (Gunawan, 2017; Hanum & Faradila, 2023; Lanis & Richardson, 2012). Research by Rahma et al. (2022) and Putri & Yanti (2022) shows that CSR initiatives often have a negative impact on tax aggressiveness, meaning companies that focus on ethical practices and social engagement tend to avoid aggressive tax strategies to maintain their reputation. These findings align with the stakeholder theory perspective, which posits that CSR disclosure reflects the company’s commitment to societal well-being, thereby reducing the incentive for tax avoidance (Salhi et al., 2019). Anggraeni & Hastuti (2020) emphasize that better CSR does not always indicate higher tax compliance, as companies strive to maintain their public image while maximizing profits through tax burden reduction. Conversely, other studies, such as Mohanadas et al. (2019) suggest that CSR can be a legitimizing tool that reduces tax aggressiveness.

Leverage, or a company's debt structure, is a financial factor often associated with tax aggressiveness. Tax theory and empirical research indicate that companies with high leverage tend to utilize interest expenses as a means to reduce tax liabilities (Dewi & Oktaviani, 2021; Maharani & Baroroh, 2019). However, research findings in Indonesia remain varied. Some studies find a positive relationship between leverage and tax aggressiveness (Azizah & Kusmuriyanto, 2016; Wijaya & Saebani, 2019), while others show that the effect is not significant (Ann & Manurung, 2019; Lailiyah et al., 2024). This may be due to differences in industry characteristics and the mechanisms of internal company oversight. It suggests that the tax benefits associated with debt may be offset by increased oversight and the financial distress risks arising from high leverage. However, the role of leverage may be more complex and dependent on the size of the company and its governance structure. Larger companies with good governance tend to strategically balance leverage to optimize their tax position without taking excessive risks (Hendayana et al., 2024).

Capital intensity, which reflects the ratio of fixed assets to total assets, is recognized as an important determinant of tax aggressiveness, particularly among manufacturing firms that are highly capital-intensive (Firdaus & Poerwati, 2022; Mariana et al., 2021). Firms with substantial fixed assets generally have more opportunities to engage in aggressive tax strategies because depreciation allowances can be used to lower taxable income (Hidayat & Fitria, 2018; Rahayu & Suryarini, 2021). This aligns with the findings of research conducted by Pangestu & Pratomo (2020) and Widiatmoko & Mulya (2021), which confirm that companies with higher capital intensity tend to be more aggressive in taxation. Further evidence from Dewi & Oktaviani (2021) and Putra et al. (2019) indicates a significant association between capital intensity and aggressive tax behavior. Nonetheless, the implementation of effective Good Corporate Governance can play a crucial role in curbing excessive tax avoidance practices (Raflis & Ananda, 2020).

Company liquidity is a measure used by a company to assess the extent to which it can meet its short-term obligations. Company liquidity is also believed to influence tax aggressiveness (Cahyadi et al., 2020; Novianto, 2021). Companies with high liquidity have more flexibility in planning tax strategies, including cash management to reduce tax burdens (Dianawati & Agustia, 2020). Dianawati & Agustia (2020) also stated that there is a positive relationship between liquidity and tax aggressiveness, whereby companies with larger cash reserves have more flexibility to engage in tax planning. However, research results regarding the influence of liquidity on tax aggressiveness still vary.

Some studies show a significant negative impact (Herlinda & Rahmawati, 2021), while others find no significant effect (Sulistiana et al., 2024; Yogiswari & Ramantha, 2017).

Good Corporate Governance (GCG) plays a crucial role in overseeing and controlling every decision made by the company's management, including tax matters, to ensure that the company fulfills its tax obligations accurately and in accordance with applicable regulations (Fama & Jensen, 1983; Shleifer & Vishny, 1997). It is expected that the implementation of effective GCG principles can help reduce tax aggressiveness practices that could harm the state and other stakeholders, while also maintaining the integrity and tax compliance of the company (Prismanitra & Sukirman, 2021; Putri et al., 2018). Empirical research consistently shows that the implementation of good GCG can reduce tax aggressiveness by enhancing oversight, aligning managerial objectives with the interests of shareholders and society, and promoting transparency (Handoyo et al., 2022; Witomo & Arrahman, 2024). For instance, the presence of independent commissioners and audit committees has been shown to negatively influence tax aggressiveness because both can limit opportunistic actions by management (Eksandy, 2017).

Nevertheless, some empirical studies indicate that the implementation of GCG does not always have a significant impact on reducing the level of tax aggressiveness practiced by companies (Dewi & Oktaviani, 2021; Gunawan, 2017). One possible reason is related to the suboptimal implementation of governance within the company, where despite existing GCG policies, their execution may be hampered by various internal factors, such as conflicts of interest between managers and shareholders that can influence tax decisions, leading the company to opt for aggressive tax avoidance strategies for short-term gains (Nugroho et al., 2020). The novelty of this research is reflected in the application of a static panel data approach to jointly examine the effects of CSR, leverage, capital intensity, and liquidity on tax aggressiveness, with GCG as a moderating variable. In contrast to earlier studies that largely analyzed these factors in isolation, this work employs the most recent dataset from 2020–2022, offering an updated and more holistic perspective on tax practices within manufacturing firms in the post-pandemic era.

Various empirical studies in Indonesia have examined the factors influencing tax aggressiveness; however, there are still shortcomings in integrating CSR variables, leverage, capital intensity, liquidity, and GCG simultaneously (Andariesta & Suryarini, 2023; Rahayu et al., 2022). In addition, most studies have utilized conventional regression or cross-sectional methods, which are less effective in illustrating the dynamics of panel data that involve variations over time and across firms (Firdaus & Poerwati, 2022; Putri et al., 2019). This research aims to make a significant contribution to accounting and taxation literature by combining CSR, leverage, capital intensity, and liquidity as independent variables, with GCG as a moderating variable in the static panel data analysis model. The use of Stata software as an analytical tool permits deeper and more accurate data processing, addressing the shortcomings of previous, simpler methods (Ghazali, 2021; Sekaran & Bougie, 2017). Furthermore, this study employs current data from manufacturing companies listed on the Indonesia Stock Exchange, making the findings more relevant to the existing conditions of the capital market and tax regulations in Indonesia. Consequently, this research is expected to provide a strong empirical foundation for policymakers, regulators, and business practitioners in designing more effective and ethical tax management strategies.

MATERIALS AND METHODS

This study applies a quantitative design using static panel data analysis to evaluate the relationship between tax aggressiveness and the independent variables, while also considering the moderating effect of GCG in manufacturing firms listed on the Indonesia Stock Exchange (IDX) for the years 2020–2022. The sampling process follows a non-probability approach, specifically purposive sampling, chosen based on predetermined criteria established by the researcher (Sekaran & Bougie, 2017; Sookye & Mohamudally-Boolaky, 2019). This method ensures that the selected firms meet the necessary requirements, thereby providing reliable and relevant data consistent with the aims of the study (McManus, 2015).

The sample selection criteria in this study include several aspects. First, manufacturing companies that published audited annual financial statements by independent auditors during the period from 2020 to 2022. These audited financial statements are essential to ensure the validity and reliability of the financial data being analyzed. Second, manufacturing companies that have not been delisted from trading during the observation period, so the data obtained reflects the overall condition of the company and allows for consistent comparisons across periods. Third, companies that use the Rupiah currency in their financial reporting to accurately reflect local economic conditions and regulations. Fourth, manufacturing companies that recorded profits during the observation period, as income tax is only imposed on the company's profits. Fifth, companies that have complete data related to the research variables, such as tax aggressiveness, CSR, leverage, capital intensity, liquidity, and the proportion of managerial ownership and independent commissioners as proxies for GCG. Based on the established selection criteria, the final research sample consists of 93 firm-year observations (n=93), drawn from 31 manufacturing companies listed on the Indonesia Stock Exchange for the period of 2020 to 2022.

This research primarily investigates the level of tax aggressiveness, a key dependent variable measured by the effective tax rate (ETR). The ETR serves as an indicator of a company's tax strategy and efficiency by reflecting the proportion of total income tax paid in relation to its pre-tax income (Halaby, 2004; Tugcu, 2018). The independent variables in this study are CSR, leverage, capital intensity, and liquidity, all of which have been established both theoretically and empirically to influence corporate tax policy (Angrist & Krueger, 2001; Canova & Ciccarelli, 2013). Furthermore, GCG is employed as a moderating variable, operationalized through the proportion of managerial ownership and independent commissioners, to analyze its impact on the relationship between the independent variables and tax aggressiveness (Fairchild & McQuillin, 2010).

In conducting data analysis, this research employs a static panel model, which is one of the primary approaches in panel data econometrics. This model facilitates the simultaneous analysis of data across time and entities (Halaby, 2004; Moral-Benito, 2012). The static panel model is utilized to assess the linear relationship between dependent and independent variables while accounting for unobserved individual heterogeneity, either through fixed effects or random effects models. The application of the static panel model offers advantages in controlling for unobserved variables and time-varying factors, leading to more efficient and unbiased estimates (Canova & Ciccarelli, 2013; McManus, 2015). The econometric static panel model can generally be formulated as follows:

$$\mathbf{ETR_{it}=\beta_0 + \beta_1 CSR_{it} + \beta_2 Indep\_Commision*CSR_{it} + \beta_3 Manage\_Own*CSR_{it} + \beta_4 3Leverage_{it} + \beta_5 Capital\_Intensity_{it} + \beta_6 Liquidity_{it} + \beta_7 Indep\_Commision_{it} + \beta_8 Manage\_Own_{it} + \epsilon_{it}}$$

Based on the function above, it can be explained: ETR_{it} indicates the tax aggressiveness level (ETR) of a company (i) at time (t), with β_0 as the constant individual effect, CSR_{it}, $Capital\_Intensity_{it}$, $Liquidity_{it}$, and GCG_{it} as the vector of independent variables, and GCG_{it} as the moderating variable of GCG (managerial ownership and independent commissioners). The parameters to be estimated are β_1, β_2, β_3, β_4, β_5, β_6, β_7, and β_8 while ϵit represents the error term. This approach allows for a direct analysis of the influence of independent variables and their interactions with the moderating variables on tax aggressiveness, in accordance with the methodology for assessing moderating effects suggested in the literature.

For the static panel tests, the first step is to choose the most suitable model, either a fixed effect or a random effect model. This decision is based on the data's characteristics and the study's objectives. To decide between the fixed effect and pooled OLS models, a Chow test is performed (Halaby, 2004). Subsequently, a Lagrange Multiplier (LM) test is used to determine if the random effect model is more appropriate than the pooled OLS model (Canova & Ciccarelli, 2013). A regression analysis is then conducted using the chosen model—fixed effect or random effect. The Hausman test is finally conducted to confirm the statistical efficiency and consistency of the selected model, ensuring that the fixed effect model is a better fit than the random effect model (Moral-Benito, 2012). The analysis of the independent variables' impact on the dependent variable can proceed once the model is statistically significant.

RESULTS AND DISCUSSION

To gain a more comprehensive understanding of the characteristics of the samples in this study, a descriptive analysis was conducted on the key variables that are the focus of the research. This analysis aims to provide an initial overview of the level of tax aggressiveness, the implementation of CSR, the condition of the financial structure, and aspects of corporate governance, particularly regarding ownership by commissioners. Below are the results of the descriptive statistical tests.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
agre_tax	93	0.2761408	0.1526421	0.04495	0.93677
csr	93	0.2974125	0.1100668	0.0989	0.54945

leverage	93	0.3499991	0.1789004	0.06504	0.8583
capital	93	0.3458368	0.172061	0.02774	0.73727
liquidity	93	5.629.368	2136992	0.53063	2.068.642
ownership	93	0.0942419	0.1616761	0	0.89444
commissioner	93	0.4121465	0.0861037	0.28571	0.6

Based on the descriptive results, the average tax compliance level (agre_tax) of the companies shows a value of 0.276, with a fairly wide distribution, ranging from a minimum value of 0.045 to a maximum approaching 0.94. The average implementation of CSR activities is recorded at 0.297, which also indicates significant variation among companies, with the lowest value at 0.099 and the highest around 0.55. The company's leverage ratio is at an average value of 0.35, with a range between 0.003 and 0.86, reflecting differences in the level of debt dependence within the company's capital structure. Meanwhile, the average capital of the companies is 0.35, with a value range between 0.028 and 0.737. The companies' liquidity level shows a relatively high average value of 5.63, but has extreme variations from a very low minimum value to a maximum of over 200. From the ownership perspective, the average share ownership by commissioners is 9.4%, with a collective proportion averaging 41%, indicating that some companies have a concentrated ownership structure among the commissioners. Overall, these findings indicate a high level of heterogeneity in the financial characteristics and corporate governance of the subjects of the study.

The following presents the estimation results from the common effects model, fixed effects model, and random effects model.

Table 2. Results of Estimation of CEM, FEM & REM

	Common Effect			Fixed Effect			Random Effect		
Variable	Coeff	t-stat	Prob	Coeff	t-stat	Prob	Coeff	t-stat	Prob
csr	0.7734856	0.94	0.350	-0.3135187	-0.21	0.832	0.4919463	0.52	0.600
kep_csr	0.7740095	0.84	0.403	1.955.187	1.45	0.154	0.9905366	1.04	0.298
kom_csr	-2.470.702	-1.37	0.176	-2.220.573	-0.63	0.535	-2.050.437	-0.99	0.324
leverage	0.3032017	3.40	0.001	0.2535046	0.76	0.448	0.2795843	2.56	0.010
capital	0.1487878	1.60	0.113	0.3489069	1.20	0.236	0.1433745	1.26	0.209
liquidity	0.0015938	2.12	0.037	0.0013604	1.73	0.089	0.0014534	2.05	0.040
ownership	-.2589245	-1.05	0.297	-0.840776	-2.42	0.019	-0.4098681	-1.58	0.114
commissioner	0.8283307	1.49	0.141	0.9300357	0.80	0.425	0.7437178	1.16	0.248
_cons	-0.1557047	-0.60	0.551	0.0683634	0.13	0.896	-0.0690225	-0.23	0.818
R-squared	0.1978			0.2325			0.1693		
F-statistic	2.59			2.04			17.63		
Prob(F-stat)	0.0140			0.0581			0.0242		

After estimating the three panel data regression models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM), the next step is to determine which model best fits the characteristics of the data and the research objectives. The process of selecting the best model begins with the Chow test to compare CEM and FEM to see if individual effects or time effects significantly influence the dependent variable. If the Chow test indicates that FEM is more suitable than CEM, a Hausman test is then conducted to compare FEM with REM. The Hausman test evaluates whether individual effects are correlated with independent variables; if they are not correlated, REM is chosen because it is more efficient, but if they are correlated, FEM becomes the more appropriate model. Sometimes, the Lagrange Multiplier (LM) test is also used to compare REM with CEM to ensure the best model.

Table 3. Model Selection Test (Cow, Hausman, LM)

Model Selection Test	Statistic	Prob
Chow	2.18	0.0061
Hausman	8.77	0.3619
Lagrange Multiplier	4.30	0.0190

Based on the results of the model selection tests, a fixed effects model was found to be a better fit than the common effects model, as indicated by the Chow Test's significant p-value of 0.0061 (with a statistic value of 2.18). The Hausman Test, however, produced a non-significant p-value of 0.3619 (statistic value of 8.77), which suggests that the random effects model is preferable to the fixed effects model. In addition, the Lagrange Multiplier Test had a significant p-value of 0.0190 (statistic value of 4.30), supporting the selection of the random effects model over the common effects model. Therefore, the random effects model was chosen as the most suitable model for the static panel data analysis in this study.

Based on Table 2, it can be explained that the independent variables in the analysis show varying effects on the dependent variable. The CSR variable has a coefficient of 0.4915463 with a t-statistic of 0.52 and a p-value of 0.600, indicating statistical insignificance. A similar condition occurs with managerial ownership moderated by CSR (kep_car) and independent commissioners moderated by CSR (kom_car), with p-values of 0.298 and 0.324, respectively, indicating insignificance. However, the leverage variable shows a positive coefficient of 0.2795843 with a t-statistic of 2.56 and a p-value of 0.010, indicating significance at the 5% level. Meanwhile, liquidity is also significant, with a p-value of 0.040, indicating a positive impact on the dependent variable. Ownership and commissioners, with p-values of 0.114 and 0.248, are not significant. In terms of model performance, it can be seen from the R-squared value of 0.1693 that about 16.93% of the variation in the dependent variable can be explained by the independent variables in this model. The F-statistic of 17.63 accompanied by a p-value of 0.0242 demonstrates that the model is statistically significant overall, implying that at least one of the independent variables meaningfully influences the dependent variable. The findings reveal that leverage and liquidity exert significant effects, whereas the remaining variables show no significant impact.

Table 4. Partial Test (t-test)

Variable	Coeff	Prob	Alpha	Conclusion
csr	0.4919463	0.600	0.05	Not Significant
kep_csr	0.9905366	0.298	0.05	Not Significant
kom_csr	-2.050.437	0.324	0.05	Not Significant
leverage	0.2795843	0.010	0.05	Significant
capital	0.1433745	0.209	0.05	Not Significant
liquidity	0.0014534	0.040	0.05	Significant
ownership	-0.4098681	0.114	0.05	Not Significant
commissioner	0.7437178	0.248	0.05	Not Significant

The analysis reveals that the CSR variable demonstrates a positive yet statistically insignificant influence on the dependent variable, with a coefficient value of 0.4915463, a t-statistic of 0.52, and a p-value of 0.600. This indicates that CSR's impact on the dependent variable is not significant at the 5% level (p-value > 0.05). In other words, even though a positive link exists between CSR and the dependent variable, its effect on tax aggressiveness cannot be considered meaningful. A 1% increase in CSR is associated with only about a 0.49% rise in tax aggressiveness. These findings are consistent with previous studies (Anggraeni & Hastuti, 2020; Hanum & Faradila, 2023; Rahayu & Suryarini, 2021) which reported that although CSR tends to correlate positively with tax aggressiveness, its influence is not significant. This suggests that companies frequently employ CSR primarily to strengthen their public image rather than to directly alter tax-related strategies. Conceptually, the CSR–tax aggressiveness relationship can be explained from two perspectives. From a legitimacy standpoint, companies engaged in CSR often attempt to limit tax aggressiveness to preserve reputation and social legitimacy, supporting the conclusion of Lanis & Richardson (2012) regarding a negative relationship. Conversely, the managerial perspective highlights that CSR may sometimes be used to mask aggressive tax practices, which explains the positive association found in certain studies, such as Hanum & Faradila (2023).

Regarding managerial ownership moderated by CSR, the findings show a positive yet insignificant effect on tax aggressiveness, with a coefficient of 0.9906366, a t-statistic of 1.04, and a p-value of 0.298. This means that although an increase in managerial ownership combined with CSR disclosure is associated with greater tax aggressiveness, the relationship is not statistically supported at the 5% level. A 1% rise in managerial ownership moderated by CSR corresponds to a 0.99% increase in tax aggressiveness, but the effect is not significant. Agency theory explains that managerial ownership helps align managers' interests with those of shareholders, reducing agency conflicts. Managers who hold equity stakes tend to act more prudently in decision-making, including those involving taxes. However, the moderating role of CSR introduces complexity: while CSR is often intended to build a positive image, it can also be used to obscure aggressive tax actions (Fama & Jensen, 1983). Several previous studies have supported the findings of this research. Anggraeni & Hastuti (2020) found that managerial ownership does not significantly moderate the relationship between CSR disclosure and tax aggressiveness. These findings are consistent with the results of this study, which states that managerial ownership moderated by CSR does not have a significant impact on tax aggressiveness. This result is reinforced by the findings of Wijaya & Saebani (2019) and Andariesta & Suryarini (2023), which also found that CSR disclosure and managerial ownership do not have a significant effect on tax aggressiveness.

The independent commissioner variable moderated by CSR demonstrates a negative but insignificant relationship with tax aggressiveness, with a coefficient of -2.050437, a t-statistic of -0.99, and a p-value of 0.324. This suggests that a 1% increase in the independent commissioner variable, when moderated by CSR, corresponds to a 2.05% reduction in tax aggressiveness, though the effect is statistically insignificant. These findings are consistent with Anggraeni & Hastuti (2020) and Andariesta & Suryarini (2023), which explain that the moderating effect of CSR on corporate governance variables, including independent commissioners, is not always significant in influencing the level of tax aggressiveness. This suggests that the role of CSR may not be strong enough to enhance the function of independent commissioners in reducing tax aggressiveness. According to agency theory, independent commissioners serve as a monitoring mechanism to reduce conflicts of interest between management and shareholders. Effective independent commissioners are expected to mitigate tax aggressiveness practices by ensuring that managerial decisions align with shareholder interests and comply with tax regulations. In this context, CSR, which acts as a moderating variable, can reinforce the role of independent commissioners in reducing tax aggressiveness, as indicated by Fama & Jensen (1983).

The leverage variable exerts a positive and statistically significant impact on tax aggressiveness, with a coefficient of 0.2795843, a t-statistic of 2.56, and a p-value of 0.010. This demonstrates that leverage significantly affects the dependent variable at the 5% level. Specifically, a 1% increase in leverage results in a 0.28% rise in tax aggressivenes The results of this study align with research conducted by Cahyadi et al. (2020); Dewi & Oktaviani (2021); Dianawati & Agustia (2020); and Hidayat & Fitria (2018), which noted that leverage significantly impacts tax aggressiveness. The research explains that companies with high debt structures tend to be more aggressive in managing their tax obligations to maximize profits. According to agency theory (Shleifer & Vishny, 1997), high levels of leverage impose discipline on managers due to increased oversight from creditors and bankruptcy risk. In response, managers may engage in aggressive tax behavior to enhance post-tax cash flow to meet debt obligations. Such aggressive tax actions have the potential to reduce taxable income, thus freeing up resources that can be used to pay off debt and mitigate bankruptcy risk (Putra et al., 2019).

The capital intensity variable has a positive, but insignificant, effect on the dependent variable. The coefficient obtained is 0.1433745 with a t-statistic of 1.26 and a p-value of 0.209. The findings indicate that although capital intensity is positively correlated with tax aggressiveness, the effect is not statistically strong enough at the 5% significance level (p-value > 0.05). Thus, every 1% increase in capital intensity will only increase tax aggressiveness by 0.14%. The results of this study are in line with research by (Cahyadi et al. (2020); Firdaus & Poerwati (2022); Hidayat & Fitria (2018); Rahayu & Suryarini (2021), which found that although capital intensity has a positive relationship with tax aggressiveness, the effect is not always significant. This suggests that capital intensity is not the sole determinant of tax aggressiveness. From a theoretical perspective, the link between capital intensity and tax avoidance behavior can be clarified through tax avoidance theory. Capital intensity defined as the share of fixed assets relative to total assets provides firms with opportunities to benefit from tax incentives such as asset depreciation, which can lower taxable income. Within this framework, capital-intensive firms are expected to show a positive association with tax avoidance, since companies holding substantial fixed assets typically possess more avenues to decrease their tax obligations (Hidayat & Fitria, 2018).

The liquidity variable exerts a positive and significant impact on tax aggressiveness, with a coefficient of 0.0014534, a t-statistic of 2.05, and a p-value of 0.040. Thus, at the 5% level, liquidity significantly increases tax aggressiveness. Specifically, a 1% rise in liquidity leads to a 0.01% increase in tax aggressiveness. This suggests that firms with higher liquidity levels are more inclined toward aggressive tax practices. This result aligns with the findings of (Cahyadi et al., 2020), which revealed that companies with high liquidity tend to have greater financial flexibility, enabling them to manage their tax obligations more strategically. Research (Ann & Manurung, 2019; Herlinda & Rahmawati, 2021; Rahayu & Suryarini, 2021) also indicates that liquidity significantly affects tax avoidance, as companies with high liquidity have a greater ability to leverage tax avoidance strategies. Liquidity reflects the company's capacity to meet its short-term obligations. Companies with high liquidity levels have greater access to financial resources to strategically manage their tax obligations, including through tax avoidance practices. In this context, high liquidity can provide flexibility for companies to exploit loopholes in tax regulations to reduce their tax burdens (Cahyadi et al., 2020).

Managerial ownership shows a negative but statistically insignificant effect on tax aggressiveness, with a coefficient of -0.4098681, a t-statistic of -1.58, and a p-value of 0.114. This implies that a 1% increase in managerial ownership decreases tax aggressiveness by about 0.41%, though the result is not statistically meaningful at the 5% level The findings of this study align with those of (Andariesta & Suryarini (2023); Anggraeni & Hastuti (2020); Dewi & Oktaviani (2021); Eksandy (2017), which found that managerial ownership does not have a significant effect on tax aggressiveness, indicating that managerial ownership may not be strong enough to influence strategic decisions related to tax. Theoretically, the relationship between managerial ownership and tax aggressiveness can be explained through agency theory. This theory states that managerial ownership can reduce conflicts of interest between managers (agents) and shareholders (principals). When managers own shares of the company, they have an incentive to act in accordance with the interests of shareholders, including in terms of tax management. In this context, high managerial ownership is expected to reduce tax aggressiveness because managers tend to avoid risks that could harm the company, such as tax penalties or damage to reputation (Fama & Jensen, 1983).

Lastly, the independent commissioner variable presents a positive but statistically insignificant relationship with tax aggressiveness, with a coefficient of 0.7437178, a t-statistic of 1.16, and a p-value of 0.248. This indicates that each 1% increase in independent commissioners raises tax aggressiveness by 0.74%, though the result lacks statistical support. Thus, every 1% increase in independent commissioners will only raise tax aggressiveness by 0.74%. This research outcome is consistent with (Andariesta & Suryarini, 2023; Dewi & Oktaviani, 2021; Eksandy, 2017; Gunawan, 2017), which found that independent commissioners are not always effective in reducing tax aggressiveness, especially if they lack sufficient independence or are not actively involved in supervision. Agency theory states that the role of independent commissioners is to oversee management to act in accordance with the interests of shareholders and comply with regulations, including tax regulations. In this context, independent commissioners are expected to mitigate tax aggressiveness by ensuring that the company meets its tax obligations and avoids risks that could harm the company's reputation (Fama & Jensen, 1983).

CONCLUSIONS AND SUGGESTION

The research results show that although CSR has a positive influence on tax aggressiveness, this effect is not statistically significant. Managerial ownership, moderated by CSR, also demonstrates a positive but not significant effect on tax aggressiveness, indicating that the moderation of CSR is not strong enough to reinforce this relationship. In contrast, independent commissioners, moderated by CSR, display a negative but not significant effect on tax aggressiveness, suggesting that the role of independent commissioners in reducing tax aggressiveness is not yet optimal. The leverage variable proves to have a positive and significant influence on tax aggressiveness, indicating that companies with high debt structures tend to be more aggressive in managing their tax obligations. Capital intensity, on the other hand, has a positive but not significant effect on tax aggressiveness, suggesting that a company's fixed assets are not a major factor in tax avoidance strategies. Lastly, liquidity has been shown to have a positive and significant impact on tax aggressiveness, indicating that companies with high liquidity tend to be more aggressive in managing their tax obligations.

The results of this study have important implications. For companies, the findings indicate that liquidity and leverage can drive aggressive behavior in terms of taxes. Therefore, companies need to ensure that their tax management strategies align with tax regulations to avoid legal risks and reputational damage. Additionally, enhancing the effectiveness of the roles of independent commissioners and managerial ownership in corporate governance is also necessary to reduce the level of tax aggressiveness. For regulators, this result highlights the need for stricter oversight of companies with high levels of liquidity and leverage, as they may tend to be aggressive in managing tax obligations. Regulators are also expected to encourage companies to use CSR as a means to enhance tax compliance rather than to cover up aggressive tax management practices. For academics, this research contributes to the literature on the effects of CSR, managerial ownership, independent commissioners, leverage, capital intensity, and liquidity on tax aggressiveness, which can serve as an important foundation for further research.

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