The Effects of Earning Management and Environmental, Social, Governance (ESG) on Tax Avoidance with Leverage as A Moderating Variable

Arja Sadjiarto¹, Jonathan Alvin Ringoman², and Leoni Angela³

Abstract
The aim of this study is to determine effect of earning management and ESG on tax avoidance (TA) using leverage as a moderating variable. The underlying theories are stakeholder theory and agency theory. Samples of this study are 29 emitten listed on the IDX for the period 2018 - 2022. Earning management is measured using discretionary accrual with the Modified Jones Model method. ESG is measured by ESG score obtained from Refinitiv data. This research uses multiple linear regression by utilizing the Stata program. It is found that earning management does not have an effect on tax avoidance. ESG has an effect on tax avoidance. Leverage does not moderate the effect of earning management and ESG on tax avoidance.

Keywords: Earning Management, Environmental Social Governance, Leverage, Tax Avoidance.

Introduction
Companies have two options to reduce the tax burden, which are tax reductions that are in accordance with regulations or tax reductions that are against tax regulations (Juanda, 2023). Tax avoidance is the lawful act of tax reductions. Tax avoidance is one of the methods of reducing taxable income with the purpose of minimizing a company’s tax burden. Wahyuni et al. (2017) discovered that a business with a high leverage ratio possesses positive effects on tax avoidance. This occurs because a high tax burden can reduce taxable income. In reality, tax avoidance is a lawful act, although ethically, it contradicts law principles and can harm society (Maas, 2022).

According to data gathered from the OECD, Indonesia’s tax ratio fell from 11.6% in the year 2019 to 10.1% in 2020. On a macro scale, tax ratio is a comparison between tax revenue of a country and its national earning within a fiscal year. On a micro scale, the tax burden ratio of each entity compared to income before tax and will be measured with the earning tax ratio (ETR). Companies with a low ETR value indicate a high corporate tax avoidance level (Prasetyo, Masitoh, & Wijayanti, 2018).

One of the flaws that can be exploited by companies to perform tax avoidance is through earning management (EM). A difference in interest becomes one of the triggers that pushes managers to perform earning management. Earning management is carried out by managers to reach the desired level of net income (Parvin, Sohel Rana, & Shams, 2020). A high EM level can cause a higher tax burden (Delgado et al., 2023). This finding is consistent with prior research conducted by Darma et al. (2018) who found a positive relationship between earning management and tax avoidance. Falbo & Firmanasyah (2021) found that earning management had a positive and significant effect on tax avoidance because managers often conduct earning management with tax motives as the result of the existence of information asymmetry.

Currently, investors better acknowledge the importance of sustainability issues, so they tend to invest in companies which openly reports their Environmental, Social, and Governance (ESG) activities. ESG score is utilized as an indicator to measure how involved a company is in initiatives related to ESG (Gillan, Koch, & Starks, 2021). Rahman et al. (2023) shows that social and environmental values in ESG possess positive

¹²³Tax Accounting Program, School of Business and Management, Petra Christian University
Jl. Siwalankerto 121-131, Surabaya, INDONESIA
Corresponding author: arja@petra.ac.id
and significant effects on financial performance. Agustini et al. (2023), Lee et al. (2021), and Yoon et al. (2021) stated that ESG influences tax avoidance. Other research show that ESG does not have an influence over tax avoidance (Anggraini & Wahyudi, 2022; Maheresmi, Probohudono, Arifin, & Widarjo, 2023).

ESG plays a role in representing a company’s concern for environmental and social responsibilities, thus, in this regard, the company possesses an appeal to investors. Companies which disclose their ESG are aware that the practice of tax avoidance is unethical and harms society. Chouaibi et al. (2022) confirmed that companies which actively promote ESG disclosure tend to reduce attempts at tax avoidance. The positive reputation earned through ESG disclosure affects the improvement of shareholders’ evaluation. In this research, relationship between ESG and tax avoidance can be observed through companies’ concern for the socio-environmental aspects.

Up to this point, there has been no research discussing whether or not leverage can moderate the practice of tax avoidance which is influenced by earning management and ESG. In prior research, Emanuel et al. (2023), dan Ernawati et al. (2021) found that leverage had a negative and significant impact on tax avoidance. A differing finding originates from a research conducted by Yoshida (2022) who stated that leverage had no impact on tax avoidance because of the fiscal limitations in interest expense. This research aims to observe whether leverage can strengthen or weaken tax avoidance. Because debt is a form of flaw which can be exploited in conducting tax avoidance through interest expense. A higher interest expense will cause a decrease in taxable income (Wahyuni et al., 2017).

Because of that, there exists a difference in this research’s approach compared to past research, such as the one conducted by Anggraini & Wahyudi (2022), Darma et al. (2018), Ernawati et al. (2021), Maheresmi et al. (2023), Rahman et al. (2023). The difference between this study and previous research lies in the usage of leverage as a moderator between ESG, earning management, and tax avoidance.

This research will examine whether or not the practice of earning management has an effect on tax avoidance, whether or not ESG disclosure as a whole influences tax avoidance, and whether or not the use of leverage can moderate the practice of tax avoidance. Secondly, this research will offer valuable insights for stakeholders, including investors and policymakers, in evaluating companies’ financial performance as well as their social behavior as reflected in their financial and non-financial reports.

**Literature Review and Hypotheses Development**

**Stakeholder Theory**

The stakeholder theory refers to the concept of who bears the responsibilities in a company (Freeman, 1984). The purpose of this theory is to form a good relationship between all parties of interest, in this case being the employees, customers, communities, suppliers, and investors (Freeman & Dmytriyev, 2017). Companies must nurture their positive reputation to attract investors and increase the company’s capitals.

**Agency Theory**

Agency theory illustrates the relationship between agents and principals in delegating work and authority in decision making (Jensen & Meckling, 1976). Shareholders serve as principal, while the managers function as agent. Principal and agent have different goals because of their different interests and corporate control (Morissan, 2019). The principal will strive to gain financial and non-financial information in order to reduce agency expenses, while the agent aims to further personal gains and short-term opportunities
The company’s decision to conduct tax avoidance by considering ESG and earning management is determined by the agent (manager) in hopes that it is in line with the principal’s will.

**Environmental, Social, and Governance (ESG)**

Environment, Social, and Governance means that companies perform corporate managerial activities which are in compliance with regulations and ethics by bearing responsibility towards the environment and society. In the past, traditional corporate management methods focused on financial performance, but more recent methods have developed towards a more sustainable direction by handling financial and non-financial performance which focused on ESG (Chang & Lee, 2022).

**Earning Management**

Company’s management would intentionally carry out earning management to adjust its financial reports and achieve the predetermined goal (Scott, 2015). There are four earning management patterns, which are income smoothing, income minimization, income maximization and taking a bath. This form of earning management is conducted by the management because of motives such as earning a bonus, not admitting managerial failure, as well as avoiding paying corporate tax (Nadhifah & Arif, 2020).

**Leverage**

Leverage is a financial ratio which is utilized to determine the comparison between a company’s debt and its equity (Octavia & Sari, 2022). Leverage could be measured by debt-to-equity ratio (DER). When DER increases, it shows that the entity uses more debt than its source of capital. This high amount of debt indicates that the company’s source of funding relies more on debt than it does on capital. With a high level of debt, the interest expense also rises. This interest payment can be taken as a subtractor of taxable income, despite certain restrictions. This aforementioned regulation is explained in Regulation No. 169 of 2015, Article 2, paragraph 1 which states that “the comparison between the amount of debt and capital as referred to in Article 1 paragraph (1) may not exceed four to one (4:1).” Interest expense will lower the amount of tax paid.

**Tax Avoidance**

Tax avoidance is a legal action or without violating any tax regulations which is utilized to minimize the tax expense. Tax avoidance itself consists of two types, which are passive and active type. The passive type refers to issues which hinder the tax-earning process, while the active type refers to acts performed by a company to reduce tax obligation (Alfarizi, Sari, & Ajengtiyas, 2021). In the research conducted by Salsabila & Diantimala (2023) it is mentioned that Effective Tax Rate is one of the methods of measuring the level at which a company performs acts of tax avoidance. If the ETR value of a certain company is high, it indicates that the company does not perform acts of tax avoidance as much.

**The Effects of Earning Management on Tax Avoidance**

A manager can reduce earning through earning management to avoid paying tax (Khuong, Liem, Thu, & Khanh, 2020). Aside from that, earning management is also beneficial for the interest of shareholders (Mardjono & Chen, 2020). According to the research conducted by Falbo & Firmansyah (2021), it was found that earning management significantly affected tax avoidance because companies believed that reducing taxable income would not impact financial reporting cost. This is due to the reported earning remaining high and positively impacting the perception of the company’s performance.
Meanwhile, the research conducted by Antonius & Tampubolon (2019), Emanuel et al. (2023), Wulandari et al. (2023), and Alfarizi et al. (2021) show that tax avoidance does not significantly affect earning management, because within a company exist departments, each with differing management, causing the managements’ tendency to prioritize earning management because of their own division and not because of tax avoidance.

H0: Earning Management Positively Affects Tax Avoidance.

The Effects of ESG on Tax Avoidance

ESG activities minimize the company’s involvement in tax avoidance’s practices (Yoon et al., 2021). Entities which show social responsibilities through ESG will possess good reputation and steer clear of tax avoidance. Mao’s (2019) research found that companies which are involved in ESG activities attempted to improve social prosperity through taxation. Companies realize that commitment in ESG disclosure can be an effective strategy in nurturing the company’s good image (Chouaibi et al., 2022). Fourati et al.’s (2019) research found that ESG activities promoted companies to invest in social prosperity. With this, ESG becomes a new flaw which companies exploit to preserve reputation through social values.

H1: ESG Negatively Affects Tax Avoidance.

Leverage’s Role as a Moderating Variable between Earning Management and ESG’s Relationship with Tax Avoidance

Regarding the amount of corporate funding sourced from debts paid by third parties (leverage), higher interest expense tend to lead lesser the tax burden (Wahyuni et al., 2017). According to Mahdiana & Amin (2020), corporate funding which is sourced from debt has the possibility of having tax avoidance motives. Sinaga & Suardikha’s (2019) research as well as Ayuningtyas & Sujana’s (2018) found that there existed a positive leverage effect on tax avoidance. According to Dewi & Oktaviani (2022) leverage does not impact to tax avoidance since a higher level of leverage does not make a company guarantee tax avoidance and the company will manage interest expense well.

Falbo & Firmansyah (2021) proved that earning management had a positive effect on tax avoidance. Emanuel et al. (2023), Wulandari et al. (2023), and Alfarizi et al. (2021) stated that earning management had a negative effect on tax avoidance. This is due to the existence of other goals desired by companies aside from merely committing tax avoidance. According to Sari & Nursyirwan (2021), a high amount of debt, as measured by leverage, influences the company to commit tax avoidance, which is also related to the practice of earning management. Leverage has a correlation with ESG (Hasan, Lynch, & Siddique, 2022) and a role in the disclosure of a company’s sustainability report (Auliani, 2019).

Given the existence of a correlation between leverage with earning management, ESG and tax avoidance above, the authors suspected that leverage may be able to moderate ESG and earning management on a company’s tax avoidance.

Hs: Leverage Moderates the Effects of Earning Management on Tax Avoidance.

Hc: Leverage Moderates the Effects ESG on Tax Avoidance.

Methodology

Data Type and Source

The population is all listed companies on the Indonesia Stock Exchange. The sample used in this research was gathered from Refinitiv database with a time span of 5 years, which starts from 2018 to 2022. The sample gathering technique which was employed in this research is the purposive sampling technique with criterias: (1) The company is listed on the Indonesia Stock Exchange (2) The company implements Environmental,
Social, and Governance (ESG) for five consecutive years from 2018 to 2022 (3) The company provides financial statements. The data analysis technique employs the multiple linear regression method using Stata program.

**Operational Variable Definition and Variable Measurement**

**Earning Management**

Earning management is an action taken by a manager to increase or decrease earning during an ongoing period of the company without causing an increase or decrease of long-term economic profit for the company (Hardiyanti, Kartika, & Sudarsi, 2022). For the measurement of earning management in this research, the researchers use discrettibary accruas utilized Jones’ modified model (Dechow et al., 1995). The formulae are:

\[
TAC_i,\;t = NI_i,\;t - CFO_i,\;t
\]

\[
\frac{TAC_i,\;t}{A_{i,t-1}} = a_1 \frac{1}{A_{i,t-1}} + a_2 \frac{\Delta REV_{i,t}}{A_{i,t-1}} + a_3 \frac{PPE_{i,t}}{A_{i,t-1}} + \epsilon_{i,t}
\]  

\[
NDA_{i,t} = a_1 \frac{1}{A_{i,t-1}} + a_2 \frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}} + a_3 \frac{PPE_{i,t}}{A_{i,t-1}}
\]

\[
DA_{i,t} = \frac{TAC_{i,t}}{A_{i,t-1}} - NDA_{i,t}
\]

Note:
- \( DA_{i,t} \) = Discretionary accruals of company i in the period year t
- \( NDA_{i,t} \) = Nondiscretionary accruals of company i in the period year t
- \( TAC_{i,t} \) = Total Accrual of company i in the period year t
- \( NI_{i,t} \) = Net Income of company i in the period year t
- \( CFO_{i,t} \) = Operating Cash Flow i in the period year t
- \( A_{i,t-1} \) = Total Assets of company i in the period year t
- \( \Delta REV_{i,t} \) = Changes in the company’s revenue in the year t
- \( \Delta REC_{i,t} \) = Changes in the company’s accounts receivable in the year t
- \( PPE_{i,t} \) = Total tangible fixed assets of company i in the period year t
- \( \epsilon \) = Error

**Environmental, Social, and Governance (ESG) Score**

ESG Score is the company standard in investment practices which consist of 3 concepts, which are environmental, social, governance (Noviarianti, 2020). The measurement of ESG in this research utilizes the ESG Scores which were taken from the data available in Refinitiv.

**Tax Avoidance**

Tax avoidance is a company’s action to reduce tax burden legally and without violating existing regulations (Stawati, 2020). The measurement of tax avoidance will utilize Effective Tax Rate (ETR). The formula is:

\[
ETR = \frac{\text{Tax Expense}}{\text{Pretax Income}}
\]

**Leverage**

Leverage is the financial ratio to measure the portion of company asset which is funded through debt (Mahdiana & Amin, 2020). The utilized formula is:

\[
LEV = \frac{\text{Total Debt}}{\text{Total Assets}}
\]
Figure 1. Research Method

Figure 1 is an analytical model of the earning management and ESG’s effects on tax avoidance using leverage as a moderating variable. The hypothesis test in this research is conducted in accordance with the data regression panel. The regression equation can be observed in the model below:

\[ TA = \alpha + \beta_1 EM + \beta_2 ESG + \beta_3 EM^\ast LEV + \beta_4 ESG^\ast LEV + \varepsilon \]

Note:
\[ \alpha = \text{Constant} \]
\[ \beta_1 - \beta_4 = \text{Regression Coefficient} \]
\[ TA = \text{Tax Avoidance} \]
\[ ESG = \text{ESG Score} \]
\[ EM = \text{Earning Management} \]
\[ LEV = \text{Leverage} \]
\[ \varepsilon = \text{Error} \]

Results and Discussion

Descriptive Statistical Analysis Results

A summary of each variable’s descriptive statistical result in this research are as follows.

<table>
<thead>
<tr>
<th></th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>145</td>
<td>0.1976</td>
<td>0.3339</td>
<td>-1.8936</td>
<td>1.0598</td>
</tr>
<tr>
<td>EM</td>
<td>145</td>
<td>-0.0691</td>
<td>0.9762</td>
<td>-2.7198</td>
<td>2.9885</td>
</tr>
<tr>
<td>ESG</td>
<td>145</td>
<td>51.4156</td>
<td>19.0216</td>
<td>13.5705</td>
<td>85.6463</td>
</tr>
<tr>
<td>EM^*LEV</td>
<td>145</td>
<td>-0.0832</td>
<td>0.5577</td>
<td>-2.0893</td>
<td>1.5410</td>
</tr>
<tr>
<td>ESG^*LEV</td>
<td>145</td>
<td>22.8902</td>
<td>13.9955</td>
<td>0.7061</td>
<td>64.4837</td>
</tr>
</tbody>
</table>

From Table 1, it appears that ETR variable achieved a maximum value of 1.0598; a minimum value of -1.8936; a mean value of 0.1976. The EM variable achieved a maximum value of 2.9885; a minimum value of -2.7198; a mean value of -0.0691. The ESG variable achieved a maximum value of 85.6463; a minimum value of 13.5705; a mean value of 51.4156. The moderating variable between EM and leverage achieved a maximum value of 1.5410; a minimum value of -2.0893; a mean value of -0.0832. The moderating variable between the ESG and leverage variable achieved a maximum score of 64.4837; a minimum value of 0.7061; a mean value of 22.8902.

Normality Test

The normality test shows that data is considered to be normally distributed if the significance value of the Skewness and Kurtosis test is higher than 0.05. As seen in Table
2, the Prob>chi 2 value from the Skewness and kurtosis test is 0.0923. It means that data is normally distributed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Pr(skewness)</th>
<th>Pr(kurtosis)</th>
<th>Adj chi2(2)</th>
<th>Prob&gt;chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>res</td>
<td>145</td>
<td>0.1353</td>
<td>0.1157</td>
<td>4.77</td>
<td>0.0923</td>
</tr>
</tbody>
</table>

**Hypothesis Test**

From the result of Table 3, it is observable that earning management does not positively affect tax avoidance, ESG negatively affects earning management, leverage does not moderate the effects of earning management on tax avoidance, and leverage does not moderate the effects of ESG on tax avoidance.

<table>
<thead>
<tr>
<th>ETR</th>
<th>Coefficient</th>
<th>Std. err.</th>
<th>t</th>
<th>P&gt;t</th>
<th>[95 % conf. interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>-0.0343783</td>
<td>0.0033746</td>
<td>-1.03</td>
<td>0.305</td>
<td>-0.1003616 0.031605</td>
</tr>
<tr>
<td>ESG</td>
<td>0.000912</td>
<td>0.0004429</td>
<td>2.06</td>
<td>0.041</td>
<td>0.0000364 0.0017876</td>
</tr>
<tr>
<td>EM*LEV</td>
<td>0.0633067</td>
<td>0.0747422</td>
<td>0.85</td>
<td>0.398</td>
<td>-0.0844627 0.211076</td>
</tr>
<tr>
<td>ESG*LEV</td>
<td>0.000753</td>
<td>0.0006273</td>
<td>0.12</td>
<td>0.905</td>
<td>-0.00111649 0.003154</td>
</tr>
<tr>
<td>_cons</td>
<td>0.1970331</td>
<td>0.0199432</td>
<td>9.88</td>
<td>0.000</td>
<td>0.1576043 0.2364619</td>
</tr>
</tbody>
</table>

The regression equation model which was obtained from the analysis result of the data panel is as follows:

\[ Y = 0.1970 - 0.0344 \text{EM} + 0.0009 \text{ESG} + 0.0633 \text{EM}^*\text{LEV} + 0.0001 \text{ESG}^*\text{LEV} + \epsilon \]

**Determination Coefficient (R²) Test**

Table 4 shows the determination coefficient R-square test result. The adjusted R-square value is 0.0603 or 6.03%, which shows that EM, ESG, and Leverage’s capability as control variables in explaining ETR is only at 6.03%, while the remaining 93.97% is explained by the research models.

<table>
<thead>
<tr>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0603</td>
<td>0.0335</td>
<td>0.07904</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Earning Management, ESG, Earning Management*Leverage, ESG*Leverage
b. Dependent variable: tax avoidance (ETR)

**Discussion**

The Effects of Earning Management on Tax Avoidance

Table 3 shows that the earning management variable does not significantly affect ETR with a P>t value of 0.305, thus H1 is rejected. This result is in line with the research by Alfariizi et al. (2021), Emanuel et al. (2023), and Wulandari et al. (2023) which state that earning management does not affect tax avoidance. This is caused by various corporate management motifs in committing the act of earning management, such as the attempt to represent a better financial performance, obtaining additional debt, raising bonus, and avoiding tax. However, those goals can change according to the economic condition. During these years, tax incentives were given by the Indonesian government in the form of reduced tax rate from 25% in the year 2019 to 22% during 2020 – 2022. It has changed companies’ strategy, which caused earning management to not be the main focus of management. This notion is strengthened by earning management’s mean value of -0.0691, which indicates that companies tended to not perform earning management. On another matter, during the Covid-19 pandemic, there existed a large amount of companies
which suffered losses, causing them to be disinterested to perform earning management with the purpose of ax avoidance.

**The Effects of ESG on Tax Avoidance**

The hypothesis test result shows that ESG negatively affects tax avoidance. It is observable that ESG has a significant effect on ETR, with a P value < 0.05, thus H2 is accepted. This finding is in line with the research by Lee et al. (2021) and Yoon et al. (2021). The ESG score of the average company in this research sample already exceeds 50%. A better ESG score encourages the company to pay tax or avoid tax evasion.

**Leverage’s Role as a Moderating Variable between the Relationship of Earning Management and ESG with Tax Avoidance**

Leverage does not moderate the positive effects of earning management on tax avoidance with a P> t value of 0.398, thus H3 is rejected. This result is supported by the opinion of Manuel et al. (2022) which stated that the heavy use of debt with the purpose of avoiding tax can increase the risk of financial difficulties for the company in the future. Moreover, the heavy use of debt can also negatively impact investors and creditors, especially if the company is incapable of showing profitability or income. Furthermore, managers tend to not use earning management as a basis for committing tax avoidance because of the discrepancies between tax regulations and accounting standard in Indonesia, causing earning management to be difficult to perform in order to carry out tax avoidance.

Leverage also does not moderate the negative effect of ESG on tax avoidance with a P> t value of 0.905, thus H4 is rejected. Emanuel et al. (2023), Manuel et al. (2022), and Puspitasari et al. (2021) stated that go-public companies in Indonesia avoid owing a large amount of debt and choose to utilize flaws in tax regulations to commit tax avoidance rather than utilizing interest expense. Furthermore, findings from Lee et al. (2021) state that go-public companies which participate in ESG show that the company wishes to get short-term profit by creating a positive image and unwilling to do acts of tax avoidance because it can create a negative image in the society.

**Conclusions and Recommendations**

It is concluded that earning management does not impact tax avoidance. Meanwhile, ESG negatively affects tax avoidance. Companies do not utilize earning management and debt to commit tax avoidance. Governmental policies which offered incentives during COVID-19 caused tax avoidance to not be companies’ main purpose in committing earning management. Moreover, companies which implement ESG score do not use tax avoidance as part of their main strategy to attract investors to invest. This finding is in accordance with the stakeholder theory, which states that companies must establish a good relationship with the society, thus, companies implement ESG score and do not commit tax avoidance will attract investors to invest and preserve the company’s reputation.

This research also found that leverage does not moderating the effects of earning management on tax avoidance and the effects of ESG on tax avoidance. The implementation of a high amount of debt in an attempt to commit tax avoidance is not utilized by managers, because it will heighten the company’s risk to miss future payments. This result also shows that companies prioritize a harmonic longevity between the company and stakeholder as well as its social responsibilities.

This research has limitations in the form of the utilized data not covering every sector of companies listed on Refinitiv from 2018 to 2022. This is caused by the large amount of companies which have not implemented an ESG score for 5 consecutive years, rendering them unsuitable as the research sample. Due to this, future research can utilize a model to measure earning management like Healy Model, DeAngelo Model, and Industry
Model as well as conducting similar research for post COVID-19 era, knowing that during the pandemic, the utilized sample does not show a high average tax avoidance activity, earning management, and leverage.

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