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THE RELATIONSHIPS BETWEEN ESG RESPONSIBILITY, EARNINGS MANAGEMENT, AND TAX AGGRESSIVENESS: EVIDENCE OF THE HALO EFFECT FROM INDONESIA

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ABSTRACT

Introduction/Main Objectives: Sustainable firms should develop competitiveness by seeking interconnections between financial and non-financial goals. This research investigates the halo effect to shed light on the motives behind environmental, social, and governance (ESG) responsibility and tax aggressiveness engaged in by the firms dealing with real earnings management (REM). **Background Problems**: Do higher ESG scores improve corporate value due to corporate credibility and ethical practices, or due to the motive of doing good to cover up irresponsible practices? **Novelty:** Only a few studies have investigated the motivation of Indonesian companies in carrying out ESG, associated with REM and tax aggressiveness to test for a halo effect. **Research Methods:** This study is based on a sample of manufacturing companies listed on the Indonesia Stock Exchange between 2015 and 2019. Panel data regression models are used in testing the hypotheses. **Finding/ Results:** ESG scores have a positive effect on market value. The halo effect is present in manufacturing firms practicing REM. Firms entering into REM have significantly higher ESG scores. REM has a negative effect while ESG scores have a positive effect on tax aggressiveness. **Conclusion:** ESG scores could increase firms' value. However, the presence of the halo effect results in higher ESG scores for firms engaging in REM. The REM activity prevents firms from aggressive tax planning, while governance responsibility encourages them to do so. The halo effect opens up the opportunity to engage in REM and tax aggressiveness. Thus, the government requires scrutiny considerations in order to avoid the unfavorable side effects of ESG enforcement.

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INTRODUCTION

ESG responsibility is an issue that has been trending throughout the world. The emergence of ESG responsibilities and corporate sustainability issues puts pressure on managers and shareholders. Within the Sustainable Development Goals (SDGs) framework of the United Nations Development Program, ESG responsibility is mandatory to support corporate sustainability performance (UNDP, 2023). In Indonesia, the implementation of ESG commitment has been interpreted into various policies. One of them was issued by the Regulation of the Financial Services Authority No. 51/POJK.03/2017(POJK 51) on the application of sustainable financing, which requires financial institutions, issuers, and publicly listed companies to practice sustainable financing and prepare sustainability reports. Another policy is the Program for Pollution Control, Evaluation, and Rating (PROPER), which is being implemented by the Ministry of Environment and Forestry. This program is an environmental rating system developed in Indonesia. It aims to enhance the environmental performance of industries and companies by evaluating and rating their compliance with environmental regulations.

Businesses should seek association between financial and non-financial strategies to achieve long-term goals. The goal of profit maximization in business, which is known as a traditional approach introduced in Friedman's 1970 paper, has been rejected. The alternative approach was introduced by Elkington (1997), the founder of a British consulting firm that directs its clients towards a sustainable economy. He proposed a triple bottom line approach to create a business environment centered on people, planet, and profit. Elkington (2018) suggests that the measurement of business success should not only be based on financial criteria, but also on the well-being of society and the goodness of the planet. Along with this perspective come various sustainability concerns that every business should embrace. According to stakeholder theory, companies should adopt a long-term goal when implementing ESG. Instead of focusing only on short-term financial goals, companies recognize that sustainable and responsible practices can lead to better outcomes for all stakeholders in the long term. Corporate ESG practices generally increase the market value of companies (Abdi et al., 2021; Aouadi & Marsat, 2018; Fuente et al., 2021; Fatemi et al., 2018; Feng & Wu, 2021; Habib, 2022; Habib & Mourad, 2023; Hu et al., 2018; Wong et al., 2021).

However, the focus behind companies' attempts at value creation can be different, as explained by legitimacy theory. On the one hand, companies focus on long-term goals to obtain more resources to increase profits; on the other hand, companies do this by legitimately meeting stakeholders' expectations. There are two types of legitimacy strategies, namely symbolic or green washing strategies and substantive strategies. Companies seeking legitimacy driven by symbolic strategies implement ESG activities through superficial impressions rather than making valuable improvements to achieve ESG outcomes. Additionally, the popular perspective of the business case for corporate goodness is that companies "do well by doing good" (Cheng et al., 2013). Corporate charitable spending on ESG liability can generate a halo effect that boosts corporate value and protects companies from litigation or regulatory risk. Previous studies have shown that companies' strengths in relation to social and ethical factors influence their market value (Hu et al., 2018; Qiu et al., 2016).ESG aspects as a practice for sustainable development have gained attention from investors and other stakeholders as an integral method of developing sustainable value (Chouaibi & Zouari, 2022; Feng & Wu, 2021; Habib & Mourad, 2023; Malik,

2015; Rezaee, 2016; Wong et al., 2021). However, this situation opens up opportunities for companies to improve ESG scores to gain recognition from customers and shareholders so that companies' elevated concerns about ESG issues translate into financial benefits for companies. In particular, the extensive literature on "doing well by doing good" examines the association between corporate performance and corporate sustainability efforts and concludes in favor of the profit thesis. Many firms focus on enhancing their financial performance by adopting ESG practices (Fuente et al., 2021; Habib, 2023; Habib & Mourad, 2023; Rabaya & Saleh, 2022; Ronalter et al., 2023; Wong et al., 2021). Evidence from experiments and field studies suggests that there are potential halo effects of being charitable and good (Elfenbein et al., 2012; List, 2006). When investors do not have sufficient information, behavioral bias can also lead to the halo effect by making assumptions based on the information that they think is relevant (Mahadwartha et al., 2023). If the reasons behind the ESG concerns relate solely to financial matters, it is possible that another unethical business practice accompanies the ESG implementation in achieving the companies' financial objectives. Hence, ESG-related activities could be part of companies' symbolic legitimacy strategy.

This study uses real earnings management (REM) to provide empirical evidence on whether there are halo effects from engaging in ESG responsibility as part of doing good. Previous studies (Cohen & Zarowin, 2010; Kothari et al., 2016)suggest that managers favor REM over accrual earnings management because REM is less detectable by external stakeholders, although it causes higher costs and negative impacts on future company performance (Abernathy et al., 2014; Cohen et al., 2008; Cohen & Zarowin, 2010; Eldenburg et al., 2011; Graham et al., 2005; Kothari et al., 2016; Roychowdhury, 2006). With the presence of the halo effect, it is expected that the more the companies engage in REM, the more their efforts to do good are reflected in higher ESG scores. It is expected that the firms with higher market value and revenue will be much more encouraged to increase ESG scores to cover up their practice on earnings manipulation (Buertey et al., 2020; Kolsi et al., 2023).

Furthermore, firms that engage in earnings management to increase profits are more likely to report losses. Firms exceeded the previous year's reported earnings to reach targets required by analysts' forecasts (Na et al., 2020;Kałdoński & Jewartowski, 2020). Managers manipulate earnings through accounting decisions or operational decisions, both positively relevant to their compensation, as recorded in previous studies (Li, 2019). Earnings can be categorized into two components: accruals and cash flow. Those two components have different implications for future earnings expectations. Accruals are less persistent than cash flow components (Ekawati, 2012). However, compared to accrual earnings management, REM influences both earnings and cash flow. The two also vary in terms of tax implications. The former basically leaves income taxes unchanged, while the latter increases reported taxes, which makes this form of earnings management more costly (Zang, 2012). Companies participating in REM may use tax planning strategies to mitigate the additional tax burden. However, corporate tax aggressiveness usually leads to a higher book-tax differential, which increases the scrutiny of regulators and external monitors (Kałdoński & Jewartowski, 2020; Tanko, 2023). Firms involved in REM do not want to stand out in terms of tax burden among other companies in similar industries. This is because they want to avoid being suspected by tax authorities, regulators, and smart investors (Armstrong et al., 2019; Rahayu

et al., 2023; Herusetya & Stefani, 2020). Consequently, the more the companies deal with REM, the less willing they are to engage in tax aggressiveness.

A similar rationale is applied to testing the linkage between ESG and tax aggressiveness. Bonham & Riggs-Cragun (2022) suggest that taxation also has the potential for unintended effects of changes in earnings management or green washing. Income taxes reduce earnings payouts to shareholders and dampen incentives to manage earnings. On the other hand, ESG subsidies increase green washing by providing incentives for higher ESG reporting. In the case of the halo effect, companies are more likely to be bold in implementing aggressive tax planning when they implement ESG as part of doing good.

The purpose of this study is to provide evidence of the halo effect that may occur in the implementation of ESG within the Indonesian context. This study contributes to the literature in several ways. First, it supplements the shortage of literature on the motivation of ESG implementation whether it is ethical conduct or merely financial matters. Second, this study is among the first that investigates the firms' motives for implementing ESG within the context of manufacturing companies engaging in REM and analysis further with the practice of tax aggressiveness. Third, by discovering the motives of firms' ESG implementation, this study could shed light on what type of law enforcement is required to drive the companies to behave according to acceptable social norms and values in implementing ESG activities. Fourth, by revealing how managers implement the ESG along with any other undertaken financial policies provides some implications for investors in the investment decision-making process.

This study draws a sample of manufacturing companies listed on the Indonesian Stock Exchange in the years 2015–2019. The years of 2020-2022 are excluded from the sample on account of the limited operations of manufacturing companies during the COVID-19 pandemic. The main results and findings of this study can be divided into four parts. First, this study finds that ESG scores have a positive and significant effect on corporate value. Second, this study also documents empirical evidence related to the presence of a halo effect for manufacturing firms that practice REM. Firms engaging in real earnings manipulation have significantly higher ESG scores. The inflation of earnings comes from the operational activities of sales manipulation, production costs, and discretionary expenses. The halo effect evidence is more profound in firms with higher market value and higher revenue. Third, this study shows that REM activities resulting from abnormal sales manipulation have a negative and significant effect on tax aggressiveness. Firms with good governance responsibility tend to deal more in aggressive tax planning.

The paper is organized as follows. Section 2 elaborates on the development of the hypotheses based on the underpinning theories and prior empirical evidence. Section 3 discusses the data, research design, REM estimations, other variable measures, and statistical models to test the hypotheses. Section 4 presents results, findings, implications, and discussions. The last section concludes the study and suggests directions for further research in the area of sustainability.

LITERATURE REVIEW

1. Sustainable Investments

Terminology such as ethical investments, responsible investments, socially responsible investments, and sustainable investments has been widely used in literature (Kumar & Firoz, 2022; Nilipour et al., 2020). It starts from the introduction by Elkington (1997)of the triple bottom line (TBL) approach which centers on people, planet, and profit. He emphasizes that, with the TBL approach in the business context, companies' goals should not only be based on financial considerations but also on the well-being of people and the goodness of the environment (Elkington, 2018). This view is in line with sustainability approach recently adopted by every business. The approach considers the ESG issues in business practices and has become one of the main trends (Blitz & de Groot, 2019). The United Nations (UN) also promotes sustainable investments within the scope of the UN Development Program's Sustainable Development Goals (SDGs).

In response to the call to promote the SDGs through ESG implementation, Indonesia has at least two existing regulatory approaches to sustainability reporting (Rahmaniati & Ekawati, 2024). The regulations fall on a spectrum between two extremes, described as narrow and broad (Christensen et al.,2021). The narrow approach focuses on providing information to investors for investment decision-making. In the case of ESG information, it is important for investors to know whether this information affects the financial risk and return on their investment. POJK 51 belongs to the narrow regulatory approach as its purpose relates to the process of implementing ESG by ensuring that companies comply with the provision of sustainability reports. Another approach is for regulations to be aimed at specific business entities to make changes in terms of the environment and society that move them toward desirable social behaviors. The goal relates to the outcomes of the ESG implementation process. PROPER can be categorized as a broad approach because the ultimate goal is the performance of companies on environmental issues which is the outcome of the environmental responsibility process. The environmental behavior of companies is mapped on a scale of five colors which indicate gold for excellent, green for good, blue for moderate, red for poor, and black for very poor. However, Christensen et al. (2021)state that the two regulatory approaches, one emphasizing in the process and the other in the outcomes, may blend if investors have preferences that go beyond maximizing a firm's value.

2. Stakeholder Theory

The stakeholder theory states that firms should consider not only shareholder's interests but also the interests and needs of various groups, including employees, customers, suppliers, communities, and the environment. When it comes to corporate ESG implementation, the stakeholder theory plays a crucial role that enables the companies to identify and engage with the various stakeholders affected by the ESG practices. A company builds legitimacy by meeting stakeholder expectations (Bansal & Bogner, 2002; Lourenço et al., 2012). Stakeholder theory suggests that companies disclose their financial and non-financial information to satisfy the needs of various stakeholders (Ahmad et al., 2023; Ahmad et al., 2021; Albitar et al., 2020; Atan et al., 2018; Habib, 2023; McGrath, 2013; Tuna et al., 2023). The performance of companies in ESG activities is becoming an increasingly important aspect for stakeholders and in the investment decision-making process (Ahmad et al., 2023; Almeyda & Darmansya, 2019). ESG usually aims to improve social welfare or make business activities more sustainable. ESG can be fully aligned with

shareholder interests and even increase company value by building trust and social capital (Lins et al., 2017). The connection between ESG aspects and sustainable development practices has gained the attention of decision-makers, investors, and other stakeholders as an important approach to increasing firm value (Chouaibi & Zouari, 2022; Feng & Wu, 2021; Habib & Mourad, 2023; Malik, 2015; Rezaee, 2016; Wong et al., 2021). Based on the stakeholder theory supported by large empirical evidence, the hypothesis is stated as follows:

H1: Corporate sustainability, measured by ESG scores, has a positive impact on corporate market value

3. Legitimacy Theory and the Halo Effect in the Context of Real Earnings Management

Corporate sustainability can also be viewed using institutional perspectives, known as the legitimacy theory (Campbell, 2007; Doh et al., 2010; Doh & Guay, 2006; Frynas & Yamahaki, 2016). The theory predicts that a company will act and behave according to the expectations of the stakeholders who oversee the company's business. With the legitimacy that it gains from these stakeholders, the company easily acquires external resources (Doh et al., 2010). The focus of the theory is social legitimacy, which refers to the company's acceptance in the eyes of society. Failure to meet institutionalized and social norms can threaten the legitimacy, resources, and survival of businesses, while social conformity leads to improved access to external resources (Bansal, 2005; Suchman, 1995). A strategic response can take the form of symbolic or substantive strategies. The former are superficial activities, while the latter are meaningful activities that can have a valuable social impact.

Ethical values and environmental considerations, rather than financial performance, should be the primary motivations for sustainnable investment (Renneboog et al., 2011). However, with the implementation of sustainnable investment, the motivation has been shifted to financial performance as the primary reason. Amel-Zadeh & Serafeim (2018) conducted a survey to discover the motivation behind the use of ESG information among investors. The results show that financial reasons are the major motivations for the use of ESG information rather than ethical values. Evidence from experiments and field studies also suggests that there are potential halo effects from being charitable and good (Elfenbein et al., 2012; List, 2006). Since the main motivations of sustainable investing turned into financial performance, many studies have been dedicated to investigating the performance of sustainable investment portfolios and whether they produce abnormal returns. The results are mixed. Some results show a positive effect on performance (Alessandrini & Jondeau, 2020; Auer, 2016), others show no effect (Zehir & Aybars, 2020), and the rest even show a negative effect (Lydenberg et al., 2018). The positive effect could be seen as the “doing well by doing good” hypothesis, that the performance of high-rated ESG stock portfolios outperform the low-rated ones or market portfolios. The high-rated ESG portfolios that consist of the “doing good” companies due to the high ESG ratings are doing well because they beat the market.

Those previous studies were conducted from the perspective of investors or shareholders. Based on the "doing well by doing good" hypothesis, this study aims to identify the halo effect by examining the companies' perspective on their motivation in implementing ESG. Much of the "doing well by doing good" literature examines the correlation between corporate performance and corporate social responsibility (CSR) and concludes in favor of the profit thesis (Fuente et al., 2022; Habib, 2023; Habib & Mourad, 2023; Rabaya & Saleh, 2022; Ronalter

et al., 2022; Wong et al., 2021). Evidence from experiments and field studies suggests that being charitable or good can result in a halo effect (Elfenbein et al., 2012; List, 2006). However, altruistic managers may invest in ESG to protect stakeholders, such as employees or the wider community, in a way that does not directly contribute to shareholder wealth. As Tirole (2001) points out, a stakeholder rather than shareholder maximization paradigm can rapidly lead to agency problems. In the context of ESG implementation, agency problems can be the source of halo effect.

This study investigates institutional motivation in implementing ESG by identifying the halo effect within the context of manufacturing companies engaging in REM activities. Roychowdhury (2006) defines REM as any deviation from normal operational practices resulting from a manager's intention to mislead at least some stakeholders into believing that certain financial reporting objectives have been achieved in the normal course of business. These differences allow managers to achieve their reporting objectives, but do not necessarily add to the value of the company. Certain methods of manipulating real activity, such as reducing prices and reducing discretionary expenses, may be the optimal course of action in certain economic circumstances. However, if managers engage in these activities to a greater extent than usual to meet or increase earnings forecasts given their economic situation, then they are engaging in real activity manipulation.

Previous studies conducted in the area of ESG and earnings management has resulted in two contradictory perspectives. On the one hand, the ESG activities that are considered as “doing good” will promote ethical conduct reflected in more transparency in earnings reporting. In other words, companies practicing ESG activeties are less willing to practice REM (Ma & Yoo, 2022; Pathak & Gupta, 2022). On the other hand, some previous studies reported that companies engage in ESG only when such activities give them financial advantages. Companies conduct ESG activities to attain media reporting, reduce scrutiny verification through stakeholders, and obtain legitimacy in the eyes of society (Almubarak et al., 2023; Garfatta, 2021; Usman et al.,2023). Gargouri et al. (2010) document that companies that adopt aggressive earnings management policies tend to engage in ethical and social policies to hide their true activities from shareholders. Such a positive relationship is due to managers' desire to gain the trust and support of stakeholders while mitigating dismissal risks that may result from the negative effects of earnings manipulation practices on the company's value and reputation. The halo effect occurs when managers use the ESG scores to cover up the real activity manipulation by inflating reported earnings.

Indeed, companies with higher revenues and higher market value can be expected to increase their ESG scores to cover their earnings manipulation practices. These companies generally have more resources to invest in ESG activities (Buertey et al., 2020; Kolsi et al., 2023; Almubarak, et al., 2023). Based on the possibility of a halo effect in the context of REM activities and ESG implementation, the hypotheses can be formulated as follows.

H2a: The companies that practice REM tend to engage more in ESG activities.
In the other words,
The companies’ REM composed of abnormal cash flows and discretionary expenses has a positive relationship with ESG scores, while abnormal production has a negative relationship with ESG scores.

H2b: The halo effect caused by engaging in REM and ESG activities is more profound in companies with higher market value.
In the other words,
Market value strengthens the relationship between REM and ESG scores.

H2c: The halo effect done through engaging in REM and ESG activities is more profound in companies with higher revenue.
In the other words,
Revenue strengthens the relationship between REM and ESG scores.

4. Real Earnings Management and Tax Aggressiveness

Companies participating in REM can use tax planning tactics to mitigate the growing tax burden. However, corporate tax aggressiveness creates a higher book-tax differential, which enhances the scrutiny of regulators (Kałdoński & Jewartowski, 2020). Companies participating in REM may not want to differentiate themselves overly from their peers in terms of their tax burden to avoid the suspicions of tax authorities, regulators, and savvy investors (Armstrong et al., 2019). Such investigations make it difficult to conceal the true motivations of manager behavior (Hanlon et al., 2014; Irawan et al., 2020). Therefore, it is expected for companies that manipulate real activities to meet or exceed profit targets to be less aggressive in performing earnings management compared to similar companies that do not perform earnings management. Studies on the effect of tax authority supervision on managerial misbehavior have been conducted in countries either with a low or high level of book-tax conformity, even in a country that has high tax enforcement intensifycation and increased supervision from tax authorities (Armstrong et al., 2015; Frank et al., 2009; Kałdoński & Jewartowski, 2020; Rahayu et al., 2023; Watrin et al., 2014). The results are consistent and conforming the hypothesis that there is negative impact between real earnings management and tax aggressiveness.

According to the previous studies and the arguments discussed, this study also formulates the following hypothesis:

H3a: The higher the companies' REM composed of abnormal real activities - cash flows, productions, and discretionary expenses - the lower the willingness of the companies to engage in tax aggressiveness.
In other words,
The companies' REM composed of abnormal cash flows and discretionary expenses has a negative relationship with tax aggressiveness, while abnormal production has a positive relationship with tax aggressiveness.

5. ESG Scores and Tax Aggressiveness

This study also examines the impact of ESG implementation on tax aggressiveness. Balakrishnan et al. (2019) document that firms with aggressive tax planning have a less transparent information environment. Although aggressive tax planning leads to expected tax savings, it can simultaneously increase the financial burden of the companies. These financial complexities are not adequately explained through communication with external parties such as investors and analysts. On the other hand, the implementation of ESG, especially in the governance aspect, is dedicated to increasing proper governance, which includes issues of transparency. In the absence of halo effect, the companies that have high ESG performance should demonstrate low aggressive tax planning.

There have not been many studies conducted in this area. Myhrberg & Harnesk (2019), who conducted a study on sustainable tax planning

with 3899 companies from 68 different countries, measured at the end of 2018, demonstrate that only the G of ESG component has a negative and significant relationship with aggressive tax planning. However, Bonham & Riggs-Cragun (2022) suggest that taxation also has the potential to have the unintended effect of changing earnings management or symbolic behavior. Income taxes reduce shareholder compensation from profits and weaken incentives for earnings management. ESG subsidies, on the other hand, exacerbate the symbolism by providing incentives for higher ESG reporting. The last perspective is used to develop the hypothesis with the existence of a halo effect. ESG activities which are considered as "doing good" can be used to conceal the misbehavior related to aggressive tax planning. Hence, the relationship between ESG implementtation and tax aggressiveness can be hypothesized as follows.

H3b: The companies with better ESG responsibility reports are more willing to engage in aggressive tax planning,

In other words:

ESG scores and their individual components have a positive relationship with tax aggressiveness.

METHOD, DATA, AND ANALYSIS

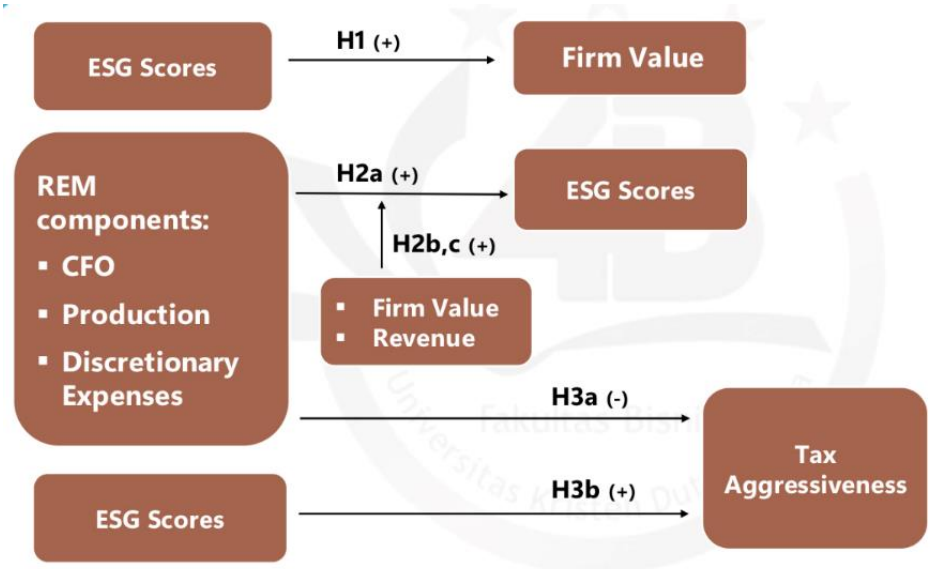
1. Research Design

This study attempts to provide evidence of the halo effect that may occur in the implementation of ESG of companies engaging in REM activities and aggressive tax planning within the Indonesian context. To accomplish this purpose, we employ the conceptual framework shown in Figure 1.

2. Measurements of ESG, REM, and Tax Aggressiveness

Table 1in Appendices shows the complete definitions and measures of the dependent, independent, moderating, and control variables.

Figure 1. Research Framework



Source: designed by the author (2023)

Table 1. Definition of Variables

Variables	Acronym	Description	Source
Dependent Variables			
Market Value	PBV	Price to book value per share	Osiris
Cost of Equity	COE	The return a firm theoretically pays its equity investors. It is calculated by multiplying the equity risk premium of the market with the beta of the stock plus a risk free rate adjusted for inflation. An equity risk premium is the expected market return minus inflation adjusted risk-free rate.	Refinitiv
Tax Aggressiveness	TAgg	$ETR = \frac{IT}{EBT}$ ETR: Effective Tax Rate of the company in year t IT: Income Tax paid by the company in year t EBT: Earnings Before Tax of the company in year t $TAgg = ETR_{isp} - ETR$ ETR_{isp}: ETR whose values are grouped according to the company's industry Firms with negative TAgg are less tax aggressive than the industry-size matched portfolio average. The higher the TAgg, the higher the firm's tax aggressiveness. Measuring tax aggressiveness relative to the "industry normal" level is based on the notion that some industries have greater ability to take advantage of various tax planning strategies than others.	Balakrishnan et al. (2019)
Independent Variables			
Environment, Social, and Governance Scores	ESG	Refinitiv ESG scores provide an assessment of a company's ESG performance based on a variety of criteria. Refinitiv uses a combination of company-reported data, public information, and third-party sources to evaluate ESG factors. The scores are based on a broad set of indicators across multiple dimensions of ESG. The category scores are rolled up into three pillar scores: environmental, social, and corporate governance. The ESG Pillar Score is a relative sum of the category weights, which vary by industry for the environmental and social categories. For governance, the weights remain the same across all sectors. The pillar weights are normalized to percentages between 0 (the lowest) and 100 (the highest).	Refinitiv from Thomson Reuters Database (Revinitiv, 2022)
Environment score	E	The environmental pillar comprises companies' resource use, emissions, and innovations.	Refinitiv
Social Score	S	The social pillar comprises companies' workforce, human rights, and community services.	Refinitiv
Governance Score	G	The governance pillar comprises companies' management, shareholders, and CSR strategies.	Refinitiv

Table 1. Definition of Variables (Continued)

Abnormal CFO	AbCFO	$\frac{CFO_{i,t}}{A_{i,t-1}} = \alpha_0 + \alpha_1 \times \frac{1}{A_{i,t-1}} + \beta_1 \times \frac{S_{i,t}}{A_{i,t-1}} + \beta_2 \times \frac{\Delta S_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$	Roychowdhury (2006)
Abnormal DISEXP	AbDISEXP	$\frac{DISEXP_{i,t}}{A_{i,t-1}} = \alpha_0 + \alpha_1 \times \frac{1}{A_{i,t-1}} + \beta \times \frac{S_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t}$	Roychowdhury (2006)
Abnormal PROD	AbPROD	$\frac{PROD_{i,t}}{A_{i,t-1}} = \alpha_0 + \alpha_1 \times \frac{1}{A_{i,t-1}} + \beta_1 \times \frac{S_{i,t}}{A_{i,t-1}} + \beta_2 \times \frac{\Delta S_{i,t}}{A_{i,t-1}} + \beta_3 \times \frac{\Delta S_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t}$	Roychowdhury (2006)
Real Earnings Management	REM	REM = AbCFO + AbDISEXP – AbPROD. The sign of AbPROD reverses from that of AbCFO and AbDISEXP	Roychowdhury (2006)
Moderating Variables			
Market Value	PBV	Price to book value per share	Osiris
Revenue	REV	Revenue at the end of the year	Osiris
Control Variables			
Return on Asset	ROA	Return on Assets	Osiris
Leverage	LEV	Total Debt divided by Total Assets	Osiris
Company Size	SIZE	Ln (Total Assets)	Osiris
Company Age	AGE	Number of years since the company was founded	Osiris
Sales Growth	GROWTH	Sales growth is a measure of the change in revenue over a fixed period of time.	Estimate
CSR Sustainability Committee	CSRCom	Board-level or senior management committee responsible for decision-making on CSR strategy	Refinitiv
Corporate Governance Board Committee	CGBCom	Board structure defense is used as a proxy of good corporate governance	Refinitiv

Source: prepared by the Author (2023)

3. Data

As reported in Table 2, this study is based on a sample of manufacturing companies listed on the Indonesia Stock Exchange that have ESG scores in 2015-2019. The years 2020-2022 are excluded from the sample due to limited operations of manufacturing companies during the COVID-19 pandemic.

4. Empirical Model

This study uses a panel data regression model with pooled ordinary least squares (OLS), fixed effect, and random effect model specifications. Khaki & Akin (2020) suggest that the use of panel data regression is expected to lead to efficient estimations by allowing for the control of heterogeneity of individual variables, collinearity, and robust measurement. According to the econometric model, there are some limitations to the unobserved heterogeneity problem that measures each firm's time-varying variables (Gormley & Matsa, 2014). In addition, Baltagi et al. (2021)state that endogeneity

problems may arise due to the causal relationship between some independent variables.

To examine the impact of ESG scores (including individual scores) on firm value, the following model (Model 1) is employed.

$$PBV_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 ROA_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 GROWTH_{it} + YearFixed + \varepsilon_{it}$$

To test the halo effect by examining the impact of REM (including AbOCF, AbDIEXP, and AbPROD) on ESG, the following model (Model 2a) is used.

$$ESG_{it} = \alpha + \beta_1 REM_{it} + \beta_2 LEV_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 GROWTH_{it} + \beta_6 CSRCom_{it} + \beta_7 CGCCom_{it} + YearFixed + \varepsilon_{it}$$

To examine the moderating variable PBV and REV, the following models (Models 2b and 2c) are employed.

$$ESG_{it} = \alpha + \beta_1 REM_{it} + \beta_2 PBV_{it} + \beta_3 REM * PBV_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \beta_6 AGE_{it} + \beta_7 GROWTH_{it} + \beta_8 CSRCom_{it} + \beta_9 CGCCom_{it} + YearFixed + \varepsilon_{it}$$

$$ESG_{it} = \alpha + \beta_1 REM_{it} + \beta_2 REV_{it} + \beta_3 REM * REV_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \beta_6 AGE_{it} + \beta_7 GROWTH_{it} + \beta_8 CSRCom_{it} + \beta_9 CGCCom_{it} + YearFixed + \varepsilon_{it}$$

To examine the effect of REM (including AbOCF, AbDIEXP, and AbPROD) and ESG (including its individual score) on Tax Aggressiveness, the following models (Model 3a and 3b) are employed.

$$TAgg_{it} = \alpha + \beta_1 REM_{it} + \beta_2 ROA_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 GROWTH_{it} + YearFixed + \varepsilon_{it}$$

$$TAgg_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 ROA_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 GROWTH_{it} + YearFixed + \varepsilon_{it}$$

RESULTS AND DISCUSSION

1. Data Collection and Sample

Table 2shows the data collection process to obtain the number of observations for regression models 1, 2, and 3. To estimate the individual components of REM and TAgg, manufacturing companies with full data are used to calculate all required variables. There are 58 individual companies for the period of 5 years, equal to 290 firm-year/observations. However, for regression models that require ESG scores, the number of companies available is limited for the duration of the 5-year period (2015-2019). The number of available companies that have ESG scores to run regression models 1 and 2 is very limited, with only 11 and 8 companies respectively. The number of available observations for periods of 5 years is 55 and 40 firm-years/observations, respectively.

Table 2. Sample Descriptions

Descriptions	Number of Companies/ Observations
Sample of manufacturing companies (2014-2019)	155
Companies with incomplete financial data	53
Companies with foreign currency	24
Companies that do not use December 31st as the end of the book period	5
Companies with negative EBT values	15
Number of manufacturing companies for REM and TAgg estimation	58
Research year (2015-2019)	5
Number of observations for Model 3a	**290**
Number of manufacturing companies with ESG scores	11
Research year (2015-2019)	5
Number of observations for Model 1	**55**
Number of manufacturing companies with ESG scores and REM	8
Research year (2015-2019)	5
Number of observations for Model 2 and 3b	**40**

Source: Processed by the author (2023)

2. Data Summary and Estimation

Table 3 Panel A, B, and Crespectively show descriptive statistics for each variable used in performing regression analysis of all models for the hypotheses testing. Specifically, Table 3 Panel A provides descriptive statistics of all variables to estimate the three components of REM, according to Roychowdhury (2006) and TAgg according to (Balakrishnan et al., 2019). Table 3 Panel B reports the descriptive statistics for Model 1 regression. PBV mean is higher than 1. This indicates that companies including in the sample have market price higher than their book value. The mean of ESG scores is 39.577%, indicating that, on average, the companies in the sample have relatively low ESG scores. The highest ESG score is only 74.42% and the lowest is 8.22%. The mean of the ROA is 13.439%, with the range between 0.78% to 44.68%, indicating all companies in the sample have positive profitability values. The mean of companies' age is 45 years old. On average, the growth of the company is relatively low, which is 3.587%, and the mean of the cost of equity is 13.198%.

Table 3 Panel Band Cshow descriptive statistics on research variables selected from a limited number of manufacturing companies with Refinitiv ESG scores, available in the Thomson Reuters database. Although the number of observations is limited, the estimated variables make sense. The distribution of data for ESG companies is within the range which offers enough variability for interpretation.

Table 3 Panel C shows the estimation of each component of REM, namely AbCFO, AbPROD, and AbDISEXP. The mean of AbCFO and AbDISEXP is 0.039 and 0.003, respectively. The mean of AbPROD is -0.092. These distributions of REM indicate that ESG-rated manufacturing companies practice REM in their operations. The direction of the sign on the mean indicates the correct interpretation of REM.

Table 3. Descriptive Statistics

Panel A. Variables for REM and TAgg Estimation

Variables	N	Minimum	Maximum	Mean	Standard Deviation
			(millions of IDR)		
EBT	290	8	5,536,442	223,294	573,757
IT	290	-19,760	916,874	38,747	104,327
REV	290	1,371	48,788,950	1,998,437	5,299,924
CFO_t	290	-7,762,413	9,014,249	112,877	882,233
A_t	290	1,358	124,391,581	3,717,639	12,759,447
A_{t-1}	290	1,064	124,391,581	3,103,852	10,506,177
S_t	290	1,371	48,788,950	1,998,437	5,299,924
S_{t-1}	290	1,155	48,788,950	1,839,692	4,889,597
S_{t-2}	290	1,003	45,212,897	1,608,491	3,879.431
ΔS_t	290	-17,401,561	21,424,575	158,744	1,784,208
ΔS_{t-1}	290	-1,071,701	21,424,575	231,201	1,459,081
COGS	290	353	39,926,332	1,582,054	4,531,612
InvChg	290	-618,385	4,856,893	50,532	348,886
ETR	290	-1.070	1.335	0.246	0.188
ETR_{isp}	290	-0.043	0.718	0.242	0.113
TAgg	290	-2.538	1.138	0.000	0.223
AbCFO	290	-0.289	0.429	0.000	0.102
AbDISEXP	290	-0.397	0.898	0.000	0.171
AbPROD	290	-1.734	7.572	0.000	0.498
PBV	290	0.202	82.444	3.255	8.778
ROA	290	-0.770	52.660	7.169	8.052
SIZE	290	22.724	33.931	28.793	2.091

Panel B. Variables for Regression Model 1

Variables	N	Minimum	Maximum	Mean	Std. Dev
PBV	55	1.050	82.440	9.298	17.555
ESG	55	8.220	74.420	39.577	17.953
E	55	0.000	83.090	32.294	21.240
S	55	4.550	84.790	42.200	21.619
G	55	8.460	82.690	42.291	20.390
ROA	55	0.780	44.680	13.439	10.549
LEV	55	0.130	0.740	0.362	0.159
SIZE	55	23.340	26.590	24.462	0.813
AGE	55	13.000	87.000	45.272	19.922
GROWTH	55	-49.860	31.550	3.587	12.880
COE	40	5.210	21.780	13.198	4.371

Table 3. Descriptive Statistics (Continued)

Panel C. Variables for Regression Model 2b, 2c, and 3

Variables	N	Minimum	Maximum	Mean	Std. Dev
ESG	40	8.220	74.420	36.745	17.081
E	40	0.000	79.260	30.142	23.736
S	40	5.590	84.790	40.711	20.068
G	40	8.460	67.330	38.109	19.397
TAgg	40	-0.360	0.230	0.010	0.098
AbCFO	40	-0.290	0.270	0.039	0.108
AbPROD	40	-0.690	0.150	-0.092	0.219
AbDISEXP	40	-0.250	0.330	0.003	0.133
PBV	40	0.690	82.440	10.084	20.452
REV	40	5.402	77.617	34.774	20.524
ROA	40	0.770	44.680	10.464	11.554
LEV	40	0.260	0.770	0.493	0.171
SIZE	40	23.480	25.550	24.311	0.613
Age	40	26.000	87.000	47.125	19.010
GROWTH	40	-35.670	90.060	8.668	21.182
CSRCom	40	0.000	1.000	0.375	0.490
CGBCom	40	0.000	1.000	0.050	0.221

Source: Processed by the author (2023)

Table A1 Panel A and B present the correlation matrix for all variables used in the regression models. The independent variables have low correlations, except for some variables that proxy the similar concepts. Most dependent and independent variables have high and significant correlation. PBV as a dependent variable has a correlation almost with all other variables, so does ESG. However, TAgg has no correlation with any other variables.

3. Regression Results

Table 4 shows the regression results of each individual ESG component and the combined ESG scores on firm value as measured by PBV, with ROA, LEV, SIZE, AGE, and GROWTH used as control variables. The regression models shown in the table are pooled regression and the alternative model was selected after performing a model specification test for unbalanced panel data. Tests of model specification performed to determine the best model to select are the Chow, Hausman, and Breusch-Pagan Lagrange multiplier tests. An example of the model selection process is shown in the notes below Table 4. The coefficient regression outputs shown in pooled regression and the alternative model in each regression model appear to point in the same predictive direction when explaining the effect of ESG scores and its components on PBV. The results show that the ESG scores have a positive and significant effect on firm value as measured by PBV. This positive effect also occurs for each individual ESG component, except for the G component which was not significant in the pooled model and was negatively significant at 10% with the random effect model. The negative effect of G component on PBV might be attributed to the high focus of stakeholders on climate risk (E component) and social factors (S component). Their focus caused the G component in ESG to be overlooked. Other results in general are in line with the previous studies (Chouaibi & Zouari, 2022; Feng & Wu, 2021; Habib &

Mourad, 2023; Malik, 2015; Rezaee, 2016; Wong et al., 2021), and confirm the stakeholder theory. Hence, the first hypothesis of this study is supported.

Table 4. Regression Results of Model 1

Variable	PBV							
	Pooled	**REM**	**Pooled**	**REM**	**Pooled**	**REM**	**Pooled**	**REM**
ESG	**0.151*** (2.835)**	**0.124** (2.389)**						
E			**0.138*** (2.922)**	**0.134*** (3.550)**				
S					**0.148*** (3.696)**	**0.145*** (4.234)**		
G							**-0.024 (-0.484)**	**-0.100* (-1.838)**
ROA	0.834*** (8.734)	0.832*** (9.010)	0.851*** (9.252)	0.851*** (11.532)	0.811*** (9.024)	0.810*** (10.559)	0.980*** (9.763)	0.894*** (6.772)
LEV	50.553*** (7.865)	49.255*** (8.126)	42.171*** (6.115)	42.325*** (7.676)	51.095*** (8.362)	50.884*** (9.803)	48.066*** (6.179)	43.773*** (5.101)
SIZE	-4.798*** (-4.328)	-5.008*** (-4.567)	-4.840 (-4.398)	-4.860*** (-5.505)	-4.669*** (-4.431)	-4.703*** (-5.209)	-5.211*** (-4.350)	-6.057*** (-3.408)
AGE	0.086* (1.785)	0.099** (2.070)	0.127** (2.671)	0.128*** (3.325)	0.099** (2.190)	0.100** (2.595)	0.120** (2.064)	0.181** (2.218)
GROWTH	-0.085 (-1.313)	-0.067 (-1.287)	-0.060 (-0.902)	-0.058 (-1.118)	-0.093 (-1.507)	-0.089* (-1.758)	-0.102 (-1.456)	-0.084 (-1.534)
Constant	85.571*** (3.168)	91.771*** (3.429)	90.033*** (3.382)	90.800*** (4.243)	81.490*** (3.171)	82.497*** (3.749)	99.369*** (3.449)	123.383*** (2.854)
Year-Fixed	YES	YES	YES	YES	YES	YES	YES	YES
R-square	0.922	0.884	0.923	0.919	0.930	0.923	0.909	0.751
No of Obs	55	55	55	55	55	55	55	55

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
Numbers in parenthesis are t-value
REM presented in Table 4 indicates Random Effect Model
Source: Processed by the author (2023)

Model Specification Test:

Regression model with ESG, while the other models have similar results.

Test	Selection Criteria	Chi-Squared	P-value	Model Choice
Chow	Pooled vs FEM	41.102	0.000	FEM
Hausman	FEM vs REM	0.000	1.000	REM
Breuch Pagan LM	REM vs Pooled	2.795	0.094	REM

Table 5. Regression Results of Model 2a

Panel A. Regression Model 2a

Variable	ESG					
	Pooled	REM	Pooled	REM	Pooled	REM
AbCFO	**79.075*** (4.869)**	**81.082*** (10.942)**				
AbDISEXP			**90.496*** (10.780)**	**89.646*** (14.188)**		
AbPROD					**-53.596*** (-9.119)**	**-53.638*** (-13.590)**
LEV	35.334*** (3.078)	32.152*** (6.242)	-18.039** (-2.309)	-20.235*** (-3.500)	5.219 (0.655)	1.213 (0.232)
SIZE	4.151* (1.728)	5.027*** (4.742)	4.206*** (2.932)	5.258*** (4.963)	5.039*** (3.061)	6.195*** (5.796)
Age	0.074 (0.599)	0.101* (1.780)	0.327*** (4.824)	0.365*** (7.218)	0.088 (1.079)	0.131** (2.455)
GROWTH	-0.040 (-0.557)	-0.028 (-0.918)	0.002 (0.038)	-0.026 (-0.891)	-0.094* (-1.997)	-0.097*** (-3.427)
CSRCom	15.678*** (4.294)	15.215*** (9.245)	6.882*** (2.829)	6.192*** (3.363)	11.491*** (4.445)	10.841*** (6.318)
CGBCom	-1.592 (-0.239)	-1.455 (-0.499)	-3.041 (-0.766)	-0.971 (-0.334)	2.272 (0.494)	3.150 (1.065)
Constant	-97.426 (-1.679)	-114.637*** (-4.434)	-77.537** (-2.243)	-100.661*** (-3.906)	-105.436** (-2.664)	-128.921*** (-4.974)
Year-Fixed	YES	-	YES	-	YES	-
R-square	0.856	0.843	0.948	0.932	0.933	0.914
No of Obs	40	40	40	40	40	40

Notes:

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
REM presented in Table 5 indicates Random Effect Model
Numbers in parenthesis are t-value.

Model Specification Test

Fixed Effect Model (FEM) cannot be used due to insufficient variation in the firm specific and time dimension. Hence, Breusch Pagan Langrage Multiplier test is employed for model specification test between Pooled Regression versus Random Effect Model, The Chi-squared is 3.113 with p-value of 0.078. Thus, Random Effect Model is preferred to Pooled Regression. This test uses a regression model with AbCFO, while the other models have similar results.

Source: Processed by the author (2023)

Table 5 Panel A shows the results of the regression of each component of REM activities on ESG Scores. As in the previous procedure, a model specification test to determine the best model for the unbalanced panel data regression is performed. The regression results in the form of pooled regression and Random Effect model, are presented in Table 5. All reported regression models show consistent results for all effects of each component of REM, namely AbCFO, AbDISEXP, and AbPROD. The coefficients regression of AbCFO and AbDISEXP are 81.082 and 89.646, respectively, and significant at 1%, while the regression coefficient of AbPROD is -

53.638 and significant at 1%. These results are inconsistent with the global empirical evidence provided by Pathak & Gupta (2022)that REM and ESG are negatively associated in 36,981 firm-year observations from 33 countries. However, the relationship of REM activities and ESG implementation may vary across countries, so taking a closer look at one country is necessary to see the dynamic process of ESG implementation in a specific country. This study, even though with limited numbers of observations of Indonesian manufacturing companies with ESG scores, reported an indication of a halo effect. ESG activities can be used to cover up the REM through the abnormal real activities of cash flows, productions, and discretionary expenses. Almubarak et al. (2023)conducted a study in Saudi Arabia that employed 304 firm-year observations for the years 2014-2021 and found similar evidence. ESG disclosures and REM have a positive association, indicating that the management that conducts earnings manipulation may adopt ESG activities to safeguard themselves from stakeholders. The result of this study is in line with Almubarak et al. (2023) and hence, may indicate a suspected symbolic strategy. Hence, the second hypothesis is supported that there is an indication of a halo effect on the implementation of ESG as the companies engage in REM activities.

Panel B. Regression Model 2b and 2c

Variable	**ESG**					
	Model 2b			**Model 2c**		
AbCFO	5.257 (0.303)			-25.162* (-1.788)		
AbDISEXP		61.552*** (5.957)			-0.336 (-0.053)	
AbPROD			-61.903*** (-5.249)			1.960 (0.419)
AbCFO*PBV	**2.525*** **(5.227)**					
AbDISEXP*PBV		**2.136*** **(5.493)**				
AbPROD*PBV			**-0.938*** **(-5.000)**			
AbCFO*REV				**2.597*** **(4.800)**		
AbDISEXP*REV					**2.250*** **(12.880)**	
AbPROD*REV						**-1.463*** **(-8.484)**
PBV	-0.113 (-1.258)	-0.387*** (-5.643)	-0.696*** (-5.503)	-1.125 (-0.174)	2.203 (0.591)	-1.082** (-2.426)
LEV	-19.728 (-1.675)	-22.777* (-1.960)	-20.778* (-1.718)	2.437 (0.203)	-31.589*** (-4.843)	-20.275** (-2.313)
SIZE	8.136** (2.702)	7.653** (2.648)	7.622** (2.504)	5.051* (1.723)	3.397** (2.290)	4.688** (2.253)
Age	0.276** (2.105)	0.299** (2.405)	0.307** (2.346)	0.374*** (2.957)	0.494*** (8.514)	0.343*** (3.900)
GROWTH	-0.102 (-1.255)	-0.093 (-1.177)	-0.104 (-1.252)	-0.060 (-0.690)	-0.052 (-1.184)	-0.112* (-1.867)
CSR_Com	7.858**	5.616**	6.863***	11.385***	1.337	3.823*

	(2.549)	(2.675)	(2.985)	(3.435)	(0.715)	(1.703)
CGB_Com	2.289	-0.580	-0.901	-1.782	-1.171	4.308
	(0.390)	(-0.141)	(-0.198)	(-0.315)	(-0.334)	(1.060)
Constant	-170.240**	-158.260**	-158.752**	-110.847	-57.292	-91.682*
	(-2.396)	(-2.316)	(-2.207)	(-1.573)	(-1.604)	(-1.837)
Year-Fixed	YES	YES	YES	YES	YES	YES
R-square	0.877	0.954	0.943	0.874	0.950	0.946
No of Obs	40	40	40	40	40	40

Notes:

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
Numbers in parenthesis are t-value.

Model Specification Test

Due to a small sample size, Fixed Effect Model (FEM) and Random Effect Model (REM) cannot be used. Unstable estimates and unreliable results may occur when running FEM and REM model with interaction terms. Based on the model specification test of Model 2a, the best model, REM, results in the same conclusion as with Pooled Regression. Thus, Pooled Regression is employed to test Model 2b and 2c.

Source: Processed by the author (2023)

As reported in Table 5 Panel B, the regressions include moderating variables of REV and PBV to test whether PBV and REV motivate the companies to increase ESG implementation to cover up REM. The limited sample size leads to a regression with interaction variables to test the hypotheses. Multicollinearity occurs between the main effect variables and the interaction variables. Two-SLS Regression is run to fix the problem. The results are consistent with the prediction that REV and PBV strengthen the association between REM (AbCFO, AbDISEXP, and AbPROD) and ESG scores. The significant level of the interaction coefficient variables is at an α level of 1%. As predicted, the regression coefficients of AbCFO and AbDISEXP have positive directions, while the coefficient of AbPROD is in the negative direction. Therefore, H2b and H2c are supported by the empirical evidence presented in Table 5. The previous study conducted by Almubarak et al. (2023) employed financial distress to moderate the positive relation between ESG activities and REM, and they found that financial distress is significantly enhanced the relationship. Financial distress is categorized as bad news, in this study high market value and revenue are good news; however, the results are the same whether bad news or good news, both enhancing the positive association of REM and ESG activities.

Table 6 Panel A shows the regression that examined the association between REM (AbCFO, AbPROD, AbDISEXP) and TAgg. The pooled regression and the random effect model are performed. The model specification test indicates that the random effect model is preferred to pooled regression. REM through sales manipulation (AbCFO) has a negative and significant effect on TAgg with a level alpha of 1% on tax aggressiveness. REM through AbDISEXP and AbPRODhas no effect on TAgg. This result suggests that companies that increase profit by manipulating REM through sales tend to be less tax aggressive. This is consistent with the previous studies (Kałdoński & Jewartowski, 2020; Rahayu et al., 2023), and supports hypothesis 3a that there is a negative relationship between REM and TAgg.The result on the association of REM and TAgg implies that doing good as reflected by not doing aggressive tax planning can compensate or cover up companies' misbehavior, in this case is REM through AbCFO.

Table 6 Panel B shows the direct effect of the ESG score on TAgg. The model specification test suggests that pooled regression is preferred to the random effect model. Combined ESG scores and

individual E and S scores had no effect on TAgg. However, the G score had a positive and significant effect on TAgg, which was reported in both regression models. Only the G score regression coefficient was significant for TAgg. Regardless of the direction of the regression coefficient, the result of this study is still consistent with the previous research of Myhrberg & Harnesk (2019). They conducted a study on sustainable tax planning with 3,899 companies from 68 different countries. However, they demonstrated a negative effect of the G score on TAgg. The difference in the direction of the regression coefficient is due to differences in context. This research was conducted only in one country. On taking a closer look, the general results that G responsibility can reduce the aggressive tax planning, do not always apply. Thus, this study confirms the existence of a halo effect on the implementation of G responsibility. Only the effect of the G score on TAgg can support the hypothesis of 3b. Doing good through governance responsibility can make the companies feel safe to engage in aggressive tax planning. This is in line with the relation between REM and TAgg, that the company practicing REM is less inclined to engage in aggressive tax planning. Bad practice in one thing can be covered by good practice in another. Likewise, the opposite applies.

Table 6. Regression Results Model 3a and 3b

Panel A. Regression Model 3a

Variable	TAgg					
	Pooled	**REM**	**Pooled**	**REM**	**Pooled**	**REM**
AbCFO	**-0.345** **(-1.997)**	**-0.345*** **(-1.924)**				
AbDISEXP			**-0.012** **(-0.162)**	**-0.012** **(-0.158)**		
AbPROD					**-0.005** **(-0.196)**	**-0.005** **(-0.187)**
ROA	0.004* (1.746)	0.004* (1.682)	0.001 (0.583)	0.001 (0.570)	0.001 (0.538)	0.001 (0.514)
LEV	-0.153** (-2.117)	-0.153** (-2.039)	-0.138* (-1.899)	-0.138* (-1.854)	-0.139* (-1.910)	-0.139* (-1.823)
SIZE	0.010 (1.041)	0.010 (1.002)	0.007 (0.748)	0.007 (0.730)	0.007 (0.742)	0.007 (0.708)
GROWTH	0.001 (0.762)	0.001 (0.734)	0.001 (0.759)	0.001 (0.742)	0.001 (0.769)	0.001 (0.734)
Constant	-0.227 (-1.083)	-0.227 (-1.044)	-0.150 (-0.720)	-0.150 (-0.703)	-0.147 (-0.709)	-0.147 (-0.677)
Year-Fixed	YES	YES	YES	YES	YES	YES
R-square	0.068	0.068	0.054	0.054	0.054	0.054
No of Obs	290	290	290	290	290	290

Notes:

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
REM presented in Table 6 indicates Random Effect Model
Numbers in parenthesis are t-value.

Table 6. Regression Results Model 3a and 3b (Continued)

Model Specification Test:

Regression Model with AbCFO, while the other models have similar results.

Test	Selection Criteria	Chi-Squared	P-value	Model Choice
Chow	Pooled vs FEM	44.491	0.886	Pooled
Hausman	FEM vs REM	0.000	1.000	REM
Breuch Pagan LM	REM vs Pooled	8.610	0.003	REM

FEM: Fixed Effect Model; REM: Random Effect Model
Source: Processed by the author (2023)

Panel B. Regression Model 3b

Variable	TAgg							
	Pooled	REM	Pooled	REM	Pooled	REM	Pooled	REM
ESG	**0.001**	**-0.001**						
	(0.505)	**(-0.488)**						
E			**-0.002**	**-0.003****				
			(-1.544)	**(-2.220)**				
S					**0.000**	**-0.001**		
					(0.122)	**(-0.301)**		
G							**0.003*****	**0.002*****
							(2.889)	**(3.236)**
ROA	-0.001	0.003	0.004	0.008**	-0.001	0.003	-0.001	-0.001
	(-0.505)	(0.884)	(1.165)	(2.223)	(-0.219)	(0.883)	(-0.554)	(-0.799)
LEV	0.037	-0.056	0.013	-0.108	0.049	-0.081	-0.061	-0.050
	(0.335)	(-0.409)	(0.120)	-0.771	(0.431)	(-0.561)	(-0.593)	(-0.590)
SIZE	-0.001	0.010	0.040	0.061	0.003	0.005	0.021	0.007
	(-0.032)	(0.221)	(1.002)	1.239	(0.083)	(0.105)	(0.688)	(0.290)
GROWTH	0.001	0.001	0.001	0.001	0.001	0.001	0.002**	0.002***
	(1.277)	(1.254)	(0.894)	(1.051)	(1.188)	(1.355)	(2.066)	(2.901)
Constant	0.011	-0.197	-0.942	-1.416	-0.082	-0.078	-0.546	-0.233
	(0.013)	(-0.189)	(-0.994)	(-1.191)	(-0.094)	(-0.074)	(-0.742)	(-0.392)
Year-Fixed	YES	-	YES	-	YES	-	YES	-
R-square	0.149	0.072	0.205	0.184	0.142	0.075	0.329	0.261
No of Obs	40	40	40	40	40	40	40	40

Notes:
***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
Numbers in parenthesis are t-value.
REM presented in Table 6 indicates Random Effect Model
Source: Processed by the author (2023)

Model Specification Test:

Regression Model with E score, while the other models have similar results.

Test	Selection Criteria	Chi-Squared	P-value	Model Choice
Chow	Pooled vs FEM	23.667	0.001	FEM
Hausman	FEM vs REM	7.314	0.198	REM
Breuch Pagan LM	REM vs Pooled	2.514	0.113	Pooled

FEM: Fixed Effect Model; REM: Random Effect Model

4. Robustness and Endogeneity Tests

The robustness test is performed for Model 1 by employing another measure of the market variable, which is COE (Table A2, Panel A. Robustness Test of Model 1 presented in the Appendices). The results show that the regression coefficients of combined ESG and individual ESG components on COE indicate negative and significant. The signs of the coefficient are as expected that the impact of ESG scores on COE is negative and significant. Only the G score presents inconsistent results.

The endogeneity test is performed on ESG scores as an independent variable regressed against PBV and TAgg as dependent variables (Table A2, Panel B. Endogeneity Test presented in the Appendices) ESG is suspected to have a problem of endogeneity. Thus, the Dubin, Hausman, and Wu test for endogeneity is employed using two-stage least square (Wooldridge, 2002). The insignificant coefficients or the error terms in the second regression conclude that the endogeneity on ESG is not present.

CONCLUSION AND SUGGESTION

1. Conclusion and Implications

This research indicates that ESG scores have a positive effect on companies' value. This result supports stakeholder and legitimacy theory according to which ESG can change firms' behaviour in ways deemed desirable by various stakeholders. The way in which stakeholders value ESG has crucial implications on how the companies are motivated to implement the ESG.

This study documents some empirical evidence related to the presence of a halo effect in manufacturing companies that practice REM. Companies that manipulate actual earnings tend to have higher ESG scores. For companies that have higher revenues and market value, the evidence is even stronger. This is a somewhat disheartening finding since the implementation of ESG, in fact, encourages stakeholders to invest in ESG businesses, but at the same time, its implementation can be used by the companies to cover up another policy that could reduce the earnings quality and reporting through the REM practices. This finding supports the notion that managers do good with other people's money (Cheng et al., 2013) and that maximizing shareholder welfare is different from maximizing market value (Hart & Zingales, 2017).

The practice of REM by firms through sales manipulation has a significant negative effect on tax aggressiveness. Moreover, those firms that manipulate real earnings are less likely to engage in aggressive tax planning. One possible reason is the undesirable scrutiny by tax authorities and external supervisors that deter real activity manipulation. The practice of REM and tax aggressiveness that are carried out simultaneously can damage a firm's image and reputation if detected. These results are in accordance with the research conducted by Armstrong et al. (2015); Frank et al., (2009); Kaldonski & Jewartowski, (2017); Rahayu et al., (2023); Watrin et al. (2014). It is indicated that the high REM activities implemented by publicly listed companies can reduce tax aggressiveness. This result indicates that companies in Indonesia that commit either fraud or manipulation only choose one activity at a time. If the company carries out real earnings management activities to increase profits, then it does not carry out tax aggressiveness, but if the company does not carry out real earnings management activities, then it does carry out tax aggressiveness.

In relation to ESG practice and tax aggressiveness, only governance responsibility has a positive effect on aggressive tax planning. A similar implication can be drawn from this

finding that companies' governance responsibility actually increases tax aggressiveness. Doing good through governance responsibility can make the companies feel safe to engage in aggressive tax planning. Bad practice in one thing can be covered by good practice in another. Likewise, the opposite applies. This result is inconsistent with the findings of Myhrberg & Harnesk (2019) that show that dealing with governance responsibility can make the companies more tax compliant.

Practical implications can be drawn from these findings in relation to the aforementioned government policies. Law enforcement that focuses on mandatory ESG reporting, such as in POJK 51, could exacerbate the halo effect. Companies can use ESG disclosures that might be considered symbolic strategies to cover up other bad behaviors such as REM and tax aggressiveness. This policy cannot prevent the symbolic legitimate strategies of ESG implementation. POJK 51 is considered to be law enforcement that focuses on the process rather than the direct outcomes of ESG implementtation. Another policy is PROPER which is directed at reducing industrial and corporate environmental problems and focuses on the direct outcomes of environmental-related issues. This policy might be able to prevent the symbolic legitimacy strategy, but still cannot prevent the possibility of the halo effect. Hence, for the purposes of its scrutiny, the government should consider developing law enforcement because, as is shown in this study, one outcome can induce changes in another outcome, depending on how the outcomes are correlated. In this study, engaging in REM activities has a positive correlation with ESG scores, while REM, through generating abnormal cash flow activities, has a negative correlation with aggressive tax planning, and governance responsibility has a positive correlation with tax aggressiveness.

2. Limitations and Suggestion

This research was certainly not carried out without limitations. Several of them need the attention of future research. This research only took samples from one country, Indonesia, so the findings obtained cannot be generalized and applied to other countries. Research that has been carried out employing global data mostly gives results that are in line with theoretical predictions. Companies that implement ESG will be more transparent, more compliant with tax policies, and vice versa. However, by looking more closely at the phenomena that occur in specific countries, different things can be found. It is very possible that this halo effect could occur in other countries. The dynamics of occurrences in different socio-economic contexts between countries will enrich the empirical evidence in this topic and allow countries to learn from one another regarding how to handle the halo effect through law enforcement.

Another limitation is the limited amount of data available on manufacturing companies with ESG scores. Therefore, hypothesis tests are performed separately with different numbers of samples, to preserve the statistical power of the parametric statistical model. Unbalanced panel data analysis employing a fixed and random effect model may suffer due to insufficient variation in individual or time dimensions. Small sample sizes can make avoiding sample selection bias challenging. The research variable measurement of corporate motivation to implement ESG does not use a direct measure but is assumed by analyzing the association between variables, such as the effect of REM on ESG scores, and the effect of REM and ESG scores on tax aggressiveness. However, the preliminary results of this research may still reveal the motivations of Indonesian companies in implementing ESG, and further in-depth study

into these issues would be worthwhile to accomplish.

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APPENDICES

Table A1. Correlation Matrix

Panel A. Regression Model 1

Pearson Correlation	PBV	ESG	E	S	G	ROA	LEV	SIZE	AGE	GROWTH	COE
PBV	1,000										
ESG	0.063**	1,000									
E	0.624**	0.876**	1,000								
S	0.567**	0.947**	0.837**	1,000							
G	0.260	0.705**	0.447**	0.581**	1,000						
ROA	0.826**	0.567**	0.495**	0.541**	0.386**	1,000					
LEV	0.609**	0.134	0.374**	0.054	-0.084	0.266*	1,000				
SIZE	-0.358**	-0.316*	-0.135	-0.345**	-0.169	-0.399**	0.234	1,000			
AGE	0.547**	0.276*	0.235	0.157	0.339*	0.288*	0.596**	0.036	1,000		
GROWTH	0.025	-0.006	-0.014	0.007	-0.067	0.021	0.093	-0.016	0.051	1,000	
COE	-0.275	-0.118	-0.181	0.009	0.037	-0.233	-0.272	-0.061	-0.176	0.185	1,000

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Panel B. Regression Model 2 and 3

Pearson Correlation	ESG	E	S	G	TAX	CFO	PROD	DISEXP	PBV	REV	ROA	LEV	SIZE	AGE	GROWTH	CSR_COM	GCB_COM
ESG	1,000																
E	0.885**	1,000															
S	0.910**	0.799**	1,000														
G	0.550**	0.205	0.285	1,000													
TAX	-0.024	-0.239	0.002	0.314*	1,000												
CFO	0.747**	0.747**	0.625**	0.335*	-0.147	1,000											
PROD	-0.877**	-0.781**	-0.790**	-0.443**	0.111	-0.808**	1,000										
DISEXP	0.880**	0.721**	0.763**	0.559**	-0.125	0.690**	-0.912**	1,000									
PBV	0.789**	0.706**	0.722**	0.368*	-0.098	0.744**	-0.932**	0.785**	1,000								
REVENUE	0.090	0.367*	0.058	-0.250	-0.192	0.197	-0.151	0.015	0.108	1,000							
ROA	0.739**	0.704**	0.653**	0.332*	-0.038	0.823**	-0.891**	0.682**	0.917**	0.186	1,000						
LEV	0.346*	0.099	0.413**	0.325*	0.131	0.000	-0.421**	0.452**	0.450**	-0.022	0.224	1,000					
SIZE	-0.125	-0.003	-0.022	-0.227	0.049	-0.346*	0.313*	-0.214	-0.444**	0.576**	-0.480**	0.114	1,000				
AGE	0.709**	0.486**	0.687**	0.563**	0.238	0.484**	-0.671**	0.544**	0.737**	-0.019	0.669**	0.587**	-0.193	1,000			
GROWTH	-0.156	0.163	-0.011	0.206	0.295	-0.344*	0.085	-0.189	-0.076	0.026	-0.079	0.218	0.163	0.114	1,000		
CSRCOM	0.663**	0.661**	0.647**	0.198	-0.065	0.526**	-0.475**	0.470**	0.455**	-0.257	0.432**	-0.124	-0.304	0.463**	-0.123	1,000	
GCBCOM	0.168	0.157	0.058	0.252	0.100	0.026	0.034	0.012	-0.090	0.010	-0.120	-0.034	0.216	0.188	0.135	0.296	1,000

**. Correlation is signi?cant at the 0.01 level (2-tailed).

*. Correlation is signi?cant at the 0.05 level (2-tailed).

Source: Processed by the author (2023)

Table A2. Robustness and Endogeneity Tests

Panel A. Robustness Test of Model 1

Variable	COE			
ESG	**-0.144*** (-3.091)**			
E		**-0.140*** (-5.004)**		
S			**-0.156*** (-5.751)**	
G				**0.083*** (2.804)**
ROA	-0.287*** (-4.052)	-0.149** (-2.079)	-0.263*** (-5.019)	-0.376*** (-6.237)
LEV	7.361** (2.227)	3.694 (1.285)	8.204*** (3.142)	6.392* (1.886)
SIZE	-1.186 (-1.301)	0.355 (0.402)	-0.516 (0.705)	-1.665* (-1.865)
AGE	0.157*** (3.842)	0.122*** (3.803)	0.168*** (5.315)	0.051 (1.157)
GROWTH	-0.012 (-0.494)	-0.008 (-0.425)	3.457 (0.002)	0.037 (1.493)
Constant	38.869* (1.784)	2.245 (0.107)	22.671 (1.294)	48.710** (2.268)
Year-Fixed	YES	YES	YES	YES
R-square	0.734	0.810	0.835	0.722
No of Obs	40	40	40	40

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
Numbers in paranthesis are t-value
The regression coefficients of ESG, E, S, and G are in the opposite direction with those of in Table 4.
Source: Processed by the author (2023)

Panel B. Endogeneity Test

The Durbin – Wu – Hausman Test				
Variable	**Stage 1**	**Stage 2**	**Stage 1**	**Stage 2**
	ESGt	**PBV**	**Gt**	**TAgg**
ESGt-1	0.863***			
	(13.855)			
ESGt		0.186**		
		(2.653)		
Gt-1			0.845***	
			(10.641)	
Gt				0.002
				(1.157)
Error term (Stage 1)		**-0.327**		**0.005**
		(-1.807)		**(1.46)**
ROA	0.245**	0.716***	-0.006	-0.002
	(2.219)	(6.277)	(-0.039)	(-0.708)
LEV	1.915	53.912***	1.178	-0.132
	(0.225)	(6.502)	(0.122)	(-0.937)
SIZE	0.176	-6.498***	0.745	0.029
	(0.126)	(-4.074)	(0.290)	(0.799)
AGE	-0.080	0.093	0.162	0.002
	(-1.349)	(1.633)	(1.353)	(0.941)
GROWTH	-0.060	-0.111	-0.084	0.001
	(-0.655)	(-1.235)	(-1.328)	(0.925)
Constant	0.915	104.086***	-20.753	-0.740
	(0.027)	(3.128)	(-0.335)	(-0.832)
Year-Fixed	Yes	Yes	Yes	Yes
R-square	0.915	0.924	0.921	0.388
No of Obs	55	55	40	40

***, **, * indicate statistical significance at the level α of 1%, 5%, and 10%, respectively.
Numbers in parenthesis are t-value
Source: Processed by the author (2023)