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The Impacts of Environmental, Social, and Governance (ESG) Factors on Profitability, Firm Value, and Cost of Capital: Panel Study of Indonesian Companies in the Period 2015 – 2019

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ABSTRACT

This study aims to examine the effect of environmental, social, and governance (ESG) factors on profitability, firm value, and cost of capital of Indonesian listed firms. The data is collected from a sample of 34 publicly listed companies in Indonesia during 2015 – 2019 along with each firm's complete ESG combined score and individual pillar score – environmental, social, and governance – from Thomson Reuters Refinitiv Eikon Datastream. This study utilized balanced panel data and panel data regression, with the random effect model estimation techniques best fitted for the proposed research models. The study found that ESG combined score negatively affects a firm's profitability (i.e., ROE) significantly. However, the ESG combined score didn't significantly affect the firm's value (i.e., Tobin's Q) and cost of capital (weighted average cost of capital, WACC). Moreover, individually, only the governance factor of ESG is significant yet negative in influencing a company's profitability. Whereas none of the individual factors of ESG is significant with firm value and cost of capital in this study.

Keywords: Environmental, social, and governance (ESG) factor; ESG Score; Return of equity; Tobin's Q; Weighted Average Cost of Capital.

1. INTRODUCTION

Environmental, social, and governance (ESG) issues are rapidly being included in business strategy as a recognized tool for assessing Corporate Social Responsibility (CSR) and Corporate Sustainability (CS) to improve financial figures, innovation, reputation, and employee commitment (Ghouri et al., 2019; Inigo & Albareda, 2019; Rettab et al., 2009; Sánchez-Infante Hernández et al., 2020; Tingchi Liu et al., 2014). ESG refers to a company's non-financial performance in the financial markets. The United Nations Principles for Responsible Investment (UN-PRI) was created in 2006 by The United Nations Environment Programme Finance Initiative and the United Nations Global Compact, as well as the investment industry, intergovernmental, and governmental organizations. They collaborated to encourage investors to consider ESG issues in their investment practices, particularly when evaluating the performance of any company (Caplan, Griswold, & Jarvis, 2013; UN PRI, 2015).

As public awareness and business recognition towards ESG rise, increasingly, many companies are implementing sustainability plans and disclosing their ESG data. Meanwhile, Indonesian firms scored a low 24.04 on average, the lowest globally with the second-lowest number of observations from 2010 - 2018 (behind South Africa), according to Bloomberg in a study by Shaikh (2022). Moreover, the maximum score of ESG of firms in Indonesia (52.48) appears to be the lowest amongst the maximum values, indicating a conservative, low-level ESG score and reporting with global standards in the country. Regarding ESG individual factor scores, Indonesian companies scored the lowest for the environmental score, second the lowest for the social score and governance score.

Indonesian governments have made efforts for sustainability reporting, as shown in 2009 through the Indonesian Stock Exchange (IDX) that launched a sustainable investment product SRI-KEHATI, valued at close to 1 billion dollars' worth of green loans issued by Indonesian banks in 2013. In 2017, Regulation No. 51

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was established to require listed companies, Issuers and Financial Services Institutions (FSI) companies to disclose sustainability reports and provide incentives for entities applying sustainable finance. However, the benefit and returns are still unclear for the expense of ESG activities of Indonesian listed companies. Existing empirical research on the relationship between a company's ESG disclosure and its financial performance or valuation has shown mixed results. Aupperle et al. (1985) accused CSR activities of escalating costs, making it an economic disadvantage for the firm. Corresponding studies argue that the relationship is neither an association (McWilliams & Siegel, 2000) nor a negative relationship (Barnea & Rubin, 2010; Griffin & Mahon, 1997) between ESG practices as CSR activity and profitability.

Therefore, consistent with previous studies that examine the impact of combined ESG factors on firm performance, this study further examines the impact of each ESG factor – environmental, social, and governance – on profitability, firm value, and cost of capital to listed firms in Indonesia. Especially helping these companies and investors, stakeholders, shareholders, and regulators to identify the financial returns of conducting, reporting and investing in ESG activities. This study is hoped to benefit policymakers, related public and private agencies, and publicly listed companies in Indonesia.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 ESG and Profitability

A firm is dependent on its community's approval for sustainable and long-term business operations (Campbell et al., 2003; Deephouse, 1996). Socially-accepted companies are proven in research to be earned by companies that obey social norms and societal expectations (Lindblom, 1994). Velte (2017) made a key contribution to the empirical corporate social responsibility (CSR) research as the author found a positive impact from ESG performance toward ROA, an accounting-based indicator of financial performance and profitability. Ladyve et al. (2020) have found a positive and significant relationship between the firm's environmental performance and profitability. As Zainab & Burhany (2020) posits, good environmental performance showcases promising long-term sustainability of a firm because it reflects the utmost responsibility taken by the company to avoid any damage to the environment. Likewise, a meta-analysis by Orlitzky et al. (2003) discovered a higher correlation of corporate social performance with profitability measures such as ROA and ROE than market-based measures like share price. A company's good corporate governance was also found to influence profitability (Sitanggang & Ratmono, 2019) positively. This is because the company shows its management commitment and capability to improve overall corporate performance. However, the true cost of environmental protection, CSR activities, and good corporate governance can lead to greater expenses, which can be worthless as Cek & Eyupoglu (2020) and Atan et al. (2018) did not found any significant impact of ESG performance on a firm's profitability. Therefore, this study concentrates on the impact of ESG and its factors towards the firm performance of Indonesian publicly listed companies. Based on the similar premise of previous literature, we hypothesize the following:

H1: There is a significant positive relationship between ESG combined score and the profitability of Indonesian listed companies.

H2: There is a significant positive relationship between ESG individual score and the profitability of Indonesian listed companies.

2.2 ESG and Firm Value

Non-financial performance, such as environmental and social performance, should be attributed to a much higher valuation of listed companies in the long run, in addition to the expansion of strong corporate performance execution (Porter & Kramer, 2011). Better corporate environmental performance businesses offered higher profits, according to previous research of firms conducted between 1995 and 2003 (Derwall et al., 2005). Likewise, Eccles et al. (2014) indicate that a high-sustainability portfolio delivers higher return performances than a low-sustainability portfolio over 18 years of study. Godfrey et al. (2009) argue that a highly sustainable profile of a firm perceives to mitigate any potential shrinkage in share price amidst negative environmental events. For instance, a toxic release announcement from a factory would result in a big drop

in the company's stock price, in which companies with higher pollution indicators tend to have lower market value (Cormier & Magnan, 2003). Moreover, a firm's social expenses concerning goodwill and human capital are revealed to be value-adding, thus, positively significant to firm value. All the social subsets are proven to be a social investment that creates value for social stakeholders and shareholders. Investors tend to align with forward-thinking corporations that understand the value of their employees and communities from which a firm's strength can be drawn (Fuente et al., 2021; Marsat & Williams, 2014). Numerous research studies have thoroughly examined a firm's corporate governance component concerning a firm's value, such as Tobin's Q and price-to-book ratio. Several of them have shown an increasing investors' confidence toward good corporate governance of a firm which results in enhanced firm value (e.g., Bauer et al., 2004; Bebchuk et al., 2010; Gompers et al., 2003; Lemmon & Lins, 2003; Siagian & Hadiprajitno, 2013). Contemporary studies showed contrasting results, finding that ESG performance and each pillar's performance do not have any significant impact or relationship with the market value of a firm. Moreover, some research discovered negative relationships (e.g., Brammer et al., 2006; Fisher-Vanden & Thorburn, 2011). Following the results of prior studies, the relationship of ESG factors with firm value in this study is hypothesized as follows:

H3: There is a significant positive relationship between ESG combined score and the firm value of Indonesian listed companies.

H4: There is a significant positive relationship between ESG individual score and the firm value of Indonesian listed companies.

2.3 ESG and Firm Value

One angle of ESG literature, or non-financial disclosure attempt to discover its influence on the corporate cost of capital (e.g., Suto & Takehara, 2017; Dhaliwal et al., 2014; el Ghoul et al., 2011). Firms having greater risk profiles in the capital market will often have higher debt and/or equity capital costs (Atan et al., 2018). Meanwhile, lower-risk profile firms offer a lower cost of capital (Bassen et al., 2006) as the perceived risk decreases. Therefore, investors and creditors require a higher reward for the higher risk taken from the higher cost of capital firms. In this case, ESG disclosure of an investment target reduces information asymmetries and/or transaction costs, through which estimation risk could increase in the capital markets (Easley & O'hara, 2004). As Bauer & Hann (2010) have noticed, companies that adopt excellent sustainability standards have considerably smaller credit spreads, resulting in lower financing costs. On the other hand, companies with serious environmental issues face higher interest rates on their corporate loans (Goss & Roberts, 2011). Similarly, firms that disclose one of the pillars of ESG, social pillar information, were found to establish a positive relationship with the cost of equity (Richardson & Welker, 2001) as well as the cost of debt (Xu et al., 2021), in research on Canadian and Chinese companies, respectively. Prior research has looked at the link between the corporate governance pillar of ESG and the cost of capital, as measured by board stability, institutional investor ownership, outside director ratio, and information disclosure quality. Good corporate governance has been linked to lower borrowing costs and narrower credit spreads, as well as having a substantial impact on a company's cost of debt (Bhojraj & Sengupta, 2003; Bradley & Chen, 2015; Cremers et al., 2007). However, one must admit that several studies concluded an insignificant correlation between a firm's cost of capital and a firm's ESG performance (Atan et al., 2018; Evdokimova & Kuzubov, 2021; Piechocka-Kaluzna et al., 2021). These findings can be extended to the current field study of Indonesian listed companies, and it is hypothesized that:

H5: There is a significant negative relationship between ESG combined score and the cost of capital of Indonesian listed companies.

H6: There is a significant negative relationship between ESG individual score and the profitability of Indonesian listed companies.

3. METHODOLOGY

3.1 Research and Design

This study used causal research aimed to investigate causal relationships between variables on whether changes in one variable will affect other variables to change (Sekaran & Bougie, 2016). Specifically in

evaluating whether two different situations have a cause-and-effect relationship related to ESG factors and corporate financial performance. The causation used in this study is causal research predictive, which primarily predicts the effect of one variable by manipulating other variables while keeping other variables constant (Cooper & Schindler, 2013).

3.2 Data Source and Collection

ESG and firm performance data are collected secondarily from Thomson Reuter's Refinitiv Eikon database, specifically between 2015 and 2019. The study period, however, ignores any intervention from the pandemic years starting in 2020, as it would have generated abnormal research findings. Refinitiv reports detailed ESG data, particularly ESG scores used in this study (e.g., emissions, environmental product innovation, human rights, shareholders, board composition, board independence, etc.), based on publicly reported data and are updated yearly.

3.3 Sampling Method

The research is built in non-probability sampling to cater to all the datasets used with a purposive sampling technique. Thus, the sample for this study must fulfill two main categories: publicly listed companies in Indonesia and companies with available ESG data and financial figures at Thomson Reuters' Refinitiv Eikon database from 2015 – 2019. Consequently, a panel data of 34 publicly listed companies' ESG scores and financial performance in Indonesia for 2015 – 2019 is used for further analysis. However, by combining financial and non-financial listed companies, this study sets a disclaimer for the involvement of five listed banks as the research samples regarding the generally higher level of leverage they might possess and differences in accounting for financial statements.

3.4 Research Framework

The stakeholder theory approach is used to construct the research framework for this study. According to the stakeholder theory, a corporation must meet the needs of both internal and external stakeholders. Management's efforts to appease stakeholders' demands and improve corporate performance are considered ESG activities (Harrison & Freeman, 1999). This study will use accounting and market measures to measure financial performance to capture the companies' historical and potential future performance. Therefore, the dependent variable – firm performance – is assessed using three criteria – profitability, firm value, and cost of capital. These models are modified and are an extension of prior research by Atan et al. (2018) and Jang et al. (2013).

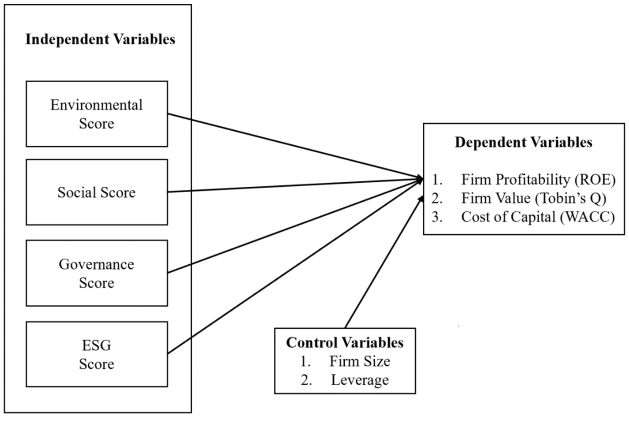

Figure 1. Research Framework modified and are an extension of prior research by Atan et al. (2018) and Jang et al. (2013).

3.5 Measurements of Variables

The research is built with three dependent variables: return on equity (i.e., ROE) to measure firm profitability, Tobin's Q to measure firm value, and the weighted average cost of capital (i.e., WACC) to measure the cost of capital. Thus, the researcher uses accounting-based (ROE) and market-based measures (Tobin's Q and WACC) as corporate financial performance indicators. Consequently, the researcher incorporates four independent variables including environmental, social, and governance (ESGS) score to measure a firm's ESG activities performance, and each of the factors' score such as environmental score (E), social score (S), and governance score (G) to evaluate each activity's performance as part of ESG activities in a company. In this case, the researcher also considers two control variables such as firm size (SIZE) and leverage (LEV) to indicate the magnitude of a company being observed as well as the risk it encounters.

3.6 Estimation of Models

There are six regression models to estimate the hypotheses as this study relies on panel regression. The regression models used in this study are adopted and modified based on prior studies by Atan et al. (2018), Jang et al. (2013), Saleh et al. (2011). The six models to check the hypotheses are as follows:

$$L\_ROE_{it} = \beta_0 + \beta_1 L\_ESGS_{it} + \beta_2 L\_SIZE_{it} + \beta_3 L\_LEV_{it} + \varepsilon$$

$$L\_ROE_{it} = \beta_0 + \beta_1 L\_E_{it} + \beta_2 L\_S_{it} + \beta_3 L\_G_{it} + \beta_4 L\_SIZE_{it} + L\_LEV_{it} + \varepsilon$$

$$L\_TQ_{it} = \beta_0 + \beta_1 L\_ESGS_{it} + \beta_2 L\_SIZE_{it} + \beta_3 L\_LEV_{it} + \varepsilon$$

$$L\_TQ_{it} = \beta_0 + \beta_1 L\_E_{it} + \beta_2 L\_S_{it} + \beta_3 L\_G_{it} + \beta_4 L\_SIZE_{it} + L\_LEV_{it} + \varepsilon$$

$$L\_WACC_{it} = \beta_0 + \beta_1 L\_ESGS_{it} + \beta_2 L\_SIZE_{it} + \beta_3 L\_LEV_{it} + \varepsilon$$

$$L\_WACC_{it} = \beta_0 + \beta_1 L\_E_{it} + \beta_2 L\_S_{it} + \beta_3 L\_G_{it} + \beta_4 L\_SIZE_{it} + L\_LEV_{it} + \varepsilon$$

Where:L_ROE_{it}= return on equity (ROE) for company *i* in period *t*; L_TQ_{it} = Tobin's Q for company *i* in period *t*; L_WACC_{it} = weighted average cost of capital (WACC) for company *i* in period *t*; L_ESGS_{it} = ESG score for company *i* in period *t*; L_E_{it} = environmental score for company *i* in period *t*;L_S_{it} = social score for company *i* in period *t*; L_G_{it} = governance score for company *i* in period *t*;L_SIZE_{it} = total assets for company *i* in period *t*;L_LEV_{it} = leverage for company *i* in period *t*; and ε = error term.

In conducting panel regression analysis for the six hypotheses the researcher conducted three tests the Chow Test, Hausman Test and Breusch Pagan Lagrange Multiplier Test on six regression models to determine the best estimation method. There are three types of regression estimation methods commonly used in panel data regression, which are Pooled Least Squared, Fixed Effect Model (FE) and Random Effect Model (RE) processed through Stata 14 software.

4. ANALYSIS AND DISCUSSION

For all hypotheses, the Hausman test and the Breusch Pagan Lagrange Multiplier Test suggested that the Random Effect (RE) estimator is more efficient than the Pooled Least Squares (PLS) and Fixed Effect (FE) estimators. To explain the outcomes, the study concentrates on the RE estimators. The result in **Appendix 1** depicts each regression output for the six models incorporated in the study. Processed by Stata, each model sequentially has r-squared (R^2) of 9.26%, 12.28%, 12.5%, 14.28%, 10%, and 10.11%, which ranges between 9% to 10%. Even though several models have low R^2 values, the model's intent is not to predict the variance in profitability, firm value, and cost of capital measures. Rather, the study examines key interactions across variables to see if there are any overall effects of ESG factors on corporate financial performance (Meuter, 1999). There are coefficient, standard deviation, and probability (p-value) data, each indicating the relationship between variables and deciding whether to accept or reject the hypothesis. The study also uses 95% confidence intervals to test the hypotheses' obedience to each model.

4.1 ESG Score Variable (ESGS)

The regression output table in **Appendix 1** shows that the combined ESG score is statistically significant in influencing the ROE; however negatively correlated. On the contrary, the ESG score is statistically insignificant in influencing Tobin's Q and WACC. The probability for each relationship is 0.012<0.05, 0.373>0.05, and 0.259>0.05, respectively. This study finds that higher sustainability measures decrease profitability. This is because preparing more informative and extensive sustainability disclosures individually from the annual report led to more expenditures. The effort can be higher than the added revenue (Waddock & Graves, 1997). Meanwhile, the regulation concerning sustainability disclosure for listed firms in Indonesia only recently started in 2017 through POJK 51, which gradually became a mandatory practice for all listed firms in Indonesia starting in December 2019. Hence, the companies have yet to see long-term benefits from their efforts before the regulation is imposed and fully implemented. Secondly, ESG score does not influence either decreasing or increasing firm value or cost of capital. Junius et al. (2020) posit that information and understanding of corporate sustainability development have not yet emerged in Indonesia, Malaysia, Singapore, or Thailand, and thus are not included as market-influencing factors. This is because investors often use the annual report to determine a company's worth. The sustainability report is not included in the annual report; therefore investors pay less attention to the sustainability report (Wanta & Herawaty, 2021). This result is similar to a study by Ming et al. (2013), who discovered that CSR policies in Asian enterprises did not reduce their cost of capital in general. According to the findings, stakeholders in developing nations still lack confidence in firms' ESG initiatives, which could cut their cost of capital in the long run (Atan et al., 2018). Hence, the lack of knowledge aligns with the lack of information on sustainable corporate development in Indonesia.

4.2 Environmental Score Variable (E)

The environmental score is shown in **Appendix 1** to be statistically insignificant in influencing both accounting-based measures (ROE) as well as market-based measures (Tobin's Q and WACC) with each probability of 0.654>0.05, 0.216>0.05, 0.438>0.05. This study finds that neither good nor bad environmental concerns of a company, for instance, environment protection, climate change, or pollution reduction, influences its profitability, value, and cost of capital. This suggests that the general public has overlooked sustainable development as a business benefit; hence, it has had no impact on their investment decisions. In Indonesia, companies do not always segregate environmental expenses into specific items in the cost group and still include them in factory overhead costs. This can cause complications for investors when examining corporate reports and for the management when making environmental conservation decisions (Noodezh et al., 2015). The challenges quadrupled by the individually published sustainability reports in Indonesia, in which sustainability reports are segregated from firms' annual reports that made investors pay less attention to the sustainability development of the company. Another reason could be that investors are less concerned with one component of disclosure, such as the environment, and instead focus on the total contents of the company's disclosure. The findings of this study agree with Wu & Shen (2010) and Qiu et al. (2014). In this case, investors in Indonesia do not require compensation for any additional element of risk since environmental performance does not affect investors' perceived risk.

4.3 Social Score Variable (S)

The social score is shown in **Appendix 1** to have an insignificant impact on both accounting-based measure (ROE) and market-based measures (Tobin's Q and WACC) with the probability for each measure 0.937>0.05, 0.373>0.05, 0.850>0.05. The finding shows that companies with social activities and reporting concerning social issues like human rights, equality, and diversity in the workplace do not perform any better in terms of the firm's profit, value, and capital cost than companies with less social conduct. Atan et al. (2018) believe that developing country capital markets, like Indonesia, may not consider a firm's social activities, disclosure, or rating in calculating the cost of capital and market value of a listed firm. This is possible for companies only aiming at meeting legal requirements

concerning CSR activities and reporting as the implementation of Law No. 40/2007 on Corporation and on Corporate Social and Environmental Responsibility. Additionally, corporate social responsibility disclosure is required for public companies in Indonesia based on the Financial Services Authority regulation No. 29/POJK.04/2016, with criterias for disclosure organized within Bapepam-LK decree No. 431/BL/2012. Moreover, there is a tendency and even moral obligation for mining companies to disclose more information in CSR due to pressure from the local environment and environmental bodies (Kiroyan, 2006). The obligation to disclose social responsibility is also not regulated in financial accounting standards to impact valuing a firm. Therefore, social responsibility disclosure activities in Indonesia have not been carried out fully as a tool to reduce estimation risks, transaction costs, agency costs, and information asymmetry (Hail & Leuz, 2006; Yeh et al., 2020). Firms are yet to enjoy the benefit of lower equity financing cost and better access to finance.

4.4 Governance Score Variable (G)

The governance score is shown in **Appendix 1** to have a significant negative impact on ROE. However, the governance score is insignificant in influencing Tobin's Q and WACC with each probability of 0.024<0.05, 0.099>0.05, and 0.823>0.05, respectively. Thus, the higher governance rating of a firm, for instance, toward its ownership structure, board independence, transparency, and disclosure of corporate information, decreases the profitability of a firm, and vice versa. Firstly, this is due to the scoring methodology of Thomson Reuters Refinitiv, which assessed corporate governance through a firm's CSR strategy and ESG reporting, as well as transparency. Corporate governance lowers profit because the ESG score is found to be negative toward profitability. Moreover, the further reason lies in the characteristics of corporate governance structure in Indonesian companies, in which controlling ownership, whether by an agency, government, or family, exists. Yawika & Handayani (2019) argues that it will certainly be negative information for investors as they are driven only to fulfill the interest of the majority owners. The ethical implications could be stretched from a stakeholder approach encompass the scope of firm governance (with firms collectively regarded as an institution, essentially as private enterprise) that fails to balance the rights and responsibilities of economic actors to society at large, in effect with economic actors as trustees exercising judgement on behalf of others (Mayer, 2019). Furthermore, the lack of significance of the governance score over firm value and cost of capital could be due to the board of commissioners' inability to intervene in operational decisions as an independent body. In addition, this can be caused by weak corporate governance in Indonesia (Claessens & Fan, 2002; Lawrence & Thomas, 2018) and insufficient company data with corporate governance scores below the average value and not complying with applicable regulations (Hadamean & Ratmono, 2019). Moreover, as this study incorporates financial institutions as a sample, the condition can happen since the banking sector conducts crucial obligations only for formality and to carry out the regulations that both Bank Indonesia and the OJK have set. As a result, having an independent board of commissioners does not strengthen the supervisory role and hence does not improve a bank's financial performance (Wanta & Herawaty, 2021).

4.5 Control Variables

Based on the regression output, smaller firms are expected to be more profitable due to the tendency for bigger companies to be less efficient in their operations, which eventually reduces profit (Iramani et al., 2018). Nevertheless, bigger firms have a lower valuation in the market due to their visibility, since smaller firms may be able to avoid better public scrutiny (Meznar & Nigh, 1995; Salancik & Pfeffer, 1978). However, the size of a corporation does not reduce or increase any estimation risk in the capital markets, such as the firm's borrowing costs and credit spreads. On the other hand, if a firm's leverage increases by 1%, then the profitability will increase roughly from 541.6508% to 518.29%, along with the cost of capital that will decrease by roughly 0.72734%. This is due to the extensive use of debt financing to increase corporate assets to generate more profits. This means the management is committed to pay out more cash and to restrict the amount of free cash flow (FCF) they have influence over (Jensen, 1986). Similarly, Wang et al. (2020) suggest that the lower the cost of capital, the more debt financing

a company uses. When companies employ more debt, creditors take on less risk than stockholders. On the contrary, the value of a firm is not influenced by the firm's leverage. This is because the debt-to-equity ratio does not influence the entire value of a firm in a perfect capital market as firm value is independent of its capital structure or leverage ratio according to the MM Approach (Modigliani & Miller, 1958).

5. CONCLUSION

ESG is a term which includes factors such as environmental, social, and governance considerations that shows a company's non-financial performance. Investors, creditors, governments, and other environmental organizations are increasingly concerned about firms' contributions to sustainable development. Indonesia began to mandate sustainable reporting in 2019 while establishing the ESG Leaders Index in 2020 at the stock exchange following the global movement from United Nations Principles for Responsible Investment and GRI reporting initiatives. Thereby, this study seeks to discover the link between a company's ESG factors and financial performance as it returns, which is measured using three criteria in Indonesia: profitability, firm value, and cost of capital. Involving a sample of 34 publicly listed companies and each database collected from Thomson Reuters' Refinitiv Eikon from 2015 through 2019.

The results empirically show a significant negative relationship between individual and combined factors of ESG and firm profitability (i.e. ROE), implying the voluntary nature and costly conduct of ESG activities being in the early stage of POJK 51 establishment in 2017. Whereas sustainable practices would provide positive impacts in the longer term, that short study time frames could not capture (Salzmann et al., 2005; Schaltegger et al., 2012). However, the ESG combined score did not significantly affect the firm's value (i.e., Tobin's Q) and cost of capital (weighted average cost of capital, WACC). This is because of the separation of the sustainability report from annual report and variability of sustainability reporting standards that made the firm's sustainability development not included in investment decisions (Wanta & Herawaty, 2021). Stakeholders are yet to have more confidence in a company's high ESG score, which could eventually lower their cost of capital (Atan et al., 2018).

However, individually, only the governance factor of ESG is significant yet negative in influencing a company's profitability. Meanwhile, none of the individual factors of ESG is significant with firm value and cost of capital in this study. The possible reason is that investors are paying less for sustainability disclosures in Indonesia as they are separated from annual reports and environmental expenses in the sustainability reports that do not have specific items in the cost group (Noodezh et al., 2015). Meanwhile, corporate governance that are utterly important for shareholders negatively influence profitability due to the incorporation of ESG reporting and transparency as one of corporate governance metrics by Thomson Reuters' Refinitiv, in which reflected through the result of the first hypothesis in this research that shows negative relationship between ESG combined score and profitability. Another possible reason is the negative information about majority ownership in Indonesian firms for investors since companies in Indonesia are characterized to have controlled ownership, whether by an agency, government, or family (Yawika & Handayani, 2019). In fact, Indonesia is the lowest among four other ASEAN countries in the disclosure of sustainability reporting (Lawrence & Thomas, 2018). This condition indicates weak environmental, social, and corporate governance factors that affect profitability, firm value, and capital cost in the public companies market in Indonesia.

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APPENDIX

Appendix 1. Random Effect Panel Data Regression Result

Model 1: Return on Equity (ROE) with ESG Score				
Variable	Coeff.	Std. Dev	P>t	R^2
ESG Score	-.133459	.1773585	0.012	0.0926
SIZE	-8.435985	3.566892	0.018	$Prob>Chi^2$
LEV	.5180943	2.128847	0.008	0.0450
_cons	295.0456	110.7002	0.008	
Model 2: Return on Equity (ROE) with E Score, S Score, and G Score				
Variable	Coeff.	Std. Dev	P>t	R^2
E Score	.0670859	.1496268	0.654	0.1228
S Score	-.012668	.159338	0.937	
G Score	-.1990667	.1293093	0.024	$Prob>Chi^2$
SIZE	-8.52114	3.576817	0.017	0.0758
LEV	.579338	2.138055	0.006	
_cons	300.107	111.0919	0.007	
Model 3: Tobin's Q and ESG Score				
Variable	Coeff.	Std. Dev	P>t	R^2

Appendix 1. Random Effect Panel Data Regression Result (continued)

ESG Score	-.0116022	.0130223	0.373	0.1250
SIZE	-1.072056	.3391843	0.002	*Prob>Chi²*
LEV	-.0465349	.1543482	0.763	0.0025
_cons	37.021	10.55129	0,000	
Model 4: Tobin's Q and E Score, S Score, and G Score				
Variable	Coeff.	Std. Dev	P>t	R^2
E Score	.0123764	.0100015	0.216	0.1428
S Score	-.0096008	.01077	0.373	
G Score	-.0139476	.0084587	0.099	*Prob>Chi²*
SIZE	-1.098539	.3434523	0.001	0.0029
LEV	-.0344008	.1537277	0.823	
_cons	38.11639	10.69117	0.000	
Model 5: WACC and ESG Score				
Variable	Coeff.	Std. Dev	P>t	R^2
ESG Score	-.0001941	.0001719	0.259	0.1000
SIZE	.0004657	.0031843	0.884	*Prob>Chi²*
LEV	-.0041475	.0020689	0,045	0.1874
_cons	.1041142	.098732	0.292	
Model 6: WACC and E Score, S Score, and G Score				
Variable	Coeff.	Std. Dev	P>t	R^2
E Score	-.0001182	.0001524	0.438	0.1011
S Score	-.0000306	.0001621	0.850	
G Score	-.0000296	.0001326	0.823	*Prob>Chi²*
SIZE	.0003436	.0032424	0.916	0.4637
LEV	-.0041589	.0021006	0,048	
_cons	.1058679	.1006156	0.293	

Source: Processed by Author