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The Effect of Sustainability on Market/BV: A Study on Public Companies in Indonesia in 2013-2019

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Abstract

The objective of this study is to know is ESG score has an influence towards Market/BV. The dependent variable in this study is market/bv. The control variables in this study are: (1) return on equity (ROE), (2) debt to asset ratio (D/A), (3) earnings per share growth (EPS growth). This study used 55 populations of publicly listed companies in Indonesia that were listed on the Indonesia Stock Exchange from 2013 to 2019 with a purposive sampling method. The total sample in this study was 385 data which were processed using the multiple linear regression analysis methods with a fixed-effect model, which had been tested both the Chow test and the Hausman test. The results of this study indicate that the ESG score disclosure has a negative and significant effect on Market/BV.

Keywords
ESG score; market/BV; ROE; debt to asset ratio; EPS growth

I. Introduction

At the end of 2020, the Indonesian capital market recorded achievements, including an increase in the number of stock investors by 53% within 1 year. According to data obtained by KSEI, the number of investors increased to 1.68 million Single Investor Identification (SID). If we look at the number of daily active investors, as of December 29, 2020 there were 94 thousand investors or a 73% increase compared to the end of last year. Retail investors who are active daily at least make one to two transactions in one trading day. Retail investors also experienced a significant growth increase of 400% throughout 2020. Based on the website www.idx.co.id, as of January 2020 the average daily trading frequency for retail investors was 51,000 transactions, while as of December 2020 the average was of 206,000 transactions. It was recorded that throughout 2020, the highest daily stock transactions amounted to 1,697,537 transactions, to be exact on December 22, 2020. This was driven by the increased participation of domestic retail investors who began to transact in the capital market world.

This shows that the growth of the Indonesian capital market climate depends on the fundamental performance of companies and the Indonesian economy as a whole. From this phenomenon, it can be said that the company's financial performance has an important role in the development of the capital market, so it needs to always be improved. However, over time, the company's performance does not only focus on the company's profit or loss but is also supported by other factors including sustainability performance which includes environmental, social and governance. These three aspects should be the responsibility of the company, but are often ignored by some companies.

II. Review of Literature

2.1 Corporate Sustainability

Financial statements are basically a source of information for investors as one of the basic considerations in making capital market investment decisions and also as a means of management responsibility for the resources entrusted to them (Prayoga and Afrizal 2021) Generally, companies set their targets and commitments within a certain period of time, especially the medium to long term. The company makes changes or reforms the company structure for the future. The company understands that sustainability will create a stable situation, more efficient operations, and the selection of the right strategy.

2.2 Environmental, Social, Governance (ESG) Concepts

Based on the Center for Risk Management & Sustainability, ESG refers to three indicators in measuring the impact of sustainability and the right steps to invest in certain issuers. The three indicators on the ESG are Environmental, Social and Governance. Currently, some consider ESG to be an important part of the company, because it can determine the company's sustainability in the future.

2.3 Legitimacy Theory

Dowling and Pfeffer (1975) define legitimacy as a condition in which an issuer or company has a value system that is in harmony with the values that exist in the community. When there is a change that makes the company's position no longer in line with the community, usually the company's legitimacy will have an impact, so it can be said that the company's legitimacy is one of the important indicators to support the company's sustainability.

2.4 Stakeholder Theory

Parmar et al., (2010) Stakeholder theory, the company is not only an entity that only runs its own operations and provides benefits or benefits for shareholders but also for all stakeholders (stakeholders). According to WH Freeman (2001) stakeholder theory is a theory that explains which parties are responsible for the company. It can be concluded that the best strategy to be able to maintain good relations with stakeholders is to disclose the ESG score which contains environmental, social and governance matters.

2.5 Agency Theory

According to (Brahmadev Panda, 2017) the hypothesis that underlies the agency problem is the conflict of interest between the major and minor owners. The main owner (major owner) is referred to as a majority group of people who own shares of a company, while the minor owner is a minority group of people who own shares of a company.

Figure 1. *Theoretical Framework for Thinking*

III. Research Methods

This research selects samples through purposive sampling method, namely selecting samples based on certain conditions.

Table 1. Research Sample Selection

Information	Indonesia
Issuers listing on the Indonesia Stock Exchange	**627**
Issuers with ESG score data	59
Issuers who did not report their annual financials during 2013-2019	-
The shares have not been actively traded in the last 1 year	(4)
Number of samples used	**55**

Source: Data Processing Results

3.1 Respondent Profile

Based on data obtained from Bloomberg from 2013-2019, after being selected based on predetermined criteria, a sample of 55 companies was obtained.

3.2 Multiple Regression Model

Multiple regression equations can measure the effect or relationship of the independent variable (free) with the dependent variable (bound). This study uses multiple regression analysis by testing the effect of sustainability on Market/Book Value. This study has the following model equation:

$$MTBi,\ t = \partial_0 + \partial_1 ESGS_{i,t} + \partial_2 ROE_{i,t} + \partial_3 DAR_{i,t} + \partial_4 EPSG_{i,t} + \delta \quad \ldots (3.1)$$

Figure 2. *Regression Model Equation*

Where:

MTB = Market to Book Value
ESGS = ESG Score
ROE = Return on Equity
DAR = Debt to Total Asset
EPSG = EPS Growth
Xn = Control Variable
δ = error

IV. Results and Discussion

4.1 Descriptive Analysis

Descriptive statistics are used to see a picture or description of a data seen from the average (mean), standard deviation, maximum value and minimum value. The following are panel data statistics from the sample in this study:

Table 2. Descriptive Statistics

Variabel	N	Minimum	Maximum	Mean	Std.Deviation	Jarque Bera	Probability
ESG score	385	6.14	54.13	25.94	12.68	22.78748	0.0000
Market/BV	385	-41.07	274.82	3.16	14.49	1658247	0.0000
ROE	385	-111.67	281.46	13.78	23.09	45994.67	0.0000
EPS growth	385	-13.84	10.98	-0.05	1.78	9348.543	0.0000
Debt/Asset	385	0	1.44	0.23	0.18	700.0035	0.0000

Source: data processed by researchers using Eviews 10 software

4.2 Best Model Selection

The researcher conducted the Chow test to choose the best model between the fixed effect vs common effect model that was suitable for use in this research.

Table 3. Output Fixed Effect vs. Common Effect (Market/BV)

Fixed Effects Tests		
Test cross section fixed effects		
Periods included	7	
Cross sections included	55	
Total panel (balanced) observations	385	
Effects Tests	**Statistic**	**Prob**
Cross-section F	1.390156	0.0451
Cross-section Chi-square	79.785335	0.0128

Source: data processed by researchers using Eviews 10 software

Furthermore, the researchers conducted a likelihood ratio analysis to choose the best model between the common effect and the fixed effect seen from the profitability value. In this research, □ : 0.0451, meaning □< 0.1, then the fixed effect is selected. Then the researcher conducted the Hausman test to choose between the fixed effect vs. random effect model that was suitable for use in this research.

Profitability is the company's ability to make a profit in relation to sales, total assets and own capital. Profitability ratios are very important to know by users of financial statements because they inform how much the company's ability to generate profits, the greater the profit ratio shows the better management in managing the company (Sartono in Angelia and Toni (2020).

Table 4. Fixed Effect vs. Random Effect Output (Market/BV)

Correlated Random Effects - Hausman Test

	Chi-Sq Statistic	Chi-Sq d.f	Prob.	
Cross-section random	53.831978	4	0.0000	
Variabel	**Fixed**	**Random**	**Var (Diff)**	**Prob**
ESG score	-0.154437	-0.029353	0.011312	0.2396
EPS growth	-0.096854	0.093962	0.000694	0.0000
ROE	0.094009	-0.023463	0.040291	0.5584
Debt/Asset	-1.803066	-2.614129	65.386855	0.9201

Source: data processed by researchers using Eviews 10 software

Based on the results of the Hausman test in the table above, it shows that the probability value of a random cross section is 0 or □< 0.1, so it can be concluded that the most appropriate model in this study is to use the fixed effect model. And the last is the Langrange Multiplier test to compare the common effect vs random effect model

Table 5. Output Common Effect vs Random Effect

	Test Hypothesis		
	Cross-section	**Time**	**Both**
Breusch-Pagan	0.388695	0.191729	0.580424
	-0.533	-0.6615	-0.4461
Honda	-0.623454	0.437869	-0.131229
	-0.7335	-0.3307	-0.5522
King-Wu	-0.623454	0.437869	0.218245
	-0.7335	-0.3307	-0.4136
Standardized Honda	-0.439537	0.741122	-5.540294
	-0.6699	-0.2293	-1.0000
Standardized King-Wu	-0.439537	0.741122	-3.354274
	-0.6699	-0.2293	-0.9996
Gourieroux, et al.	-	-	0.191729
			-0.5579

Source: data processed by researchers using Eviews 10 software

Based on the table above, the p value is shown at -0.533 where the value is < 0.05. So the Langrange Multiplier shows that the best estimation method is random effect. It can be concluded that the fixed effect model has been selected 2 (two) times, namely the Chow test and the Hausman test. While the random effect model is only selected on the Langrange Multiplier. Meanwhile, the common effect model in the test was not selected at all. Thus, the fixed effect model is better used in interpreting the panel data regression in this study.

Furthermore, the researcher wants to know whether the model in this study has multicollinearity by looking at the coefficients of the processed data. If there is a coefficient greater than0.9, then there is multicollinearity, but if it is less than 0.9 then there is no multicollinearity. Here are the output results of the correlation coefficient:

Table 6. Correlation between independent variables

	ESG score	ROE	Debt/Asset	EPS Growth
ESG score	1.000000	-0.115901	-0.049493	-0.029948
ROE	-0.115901	1.000000	-0.138647	0.078674
Debt/Asset	-0.049493	-0.138647	1.000000	-0.022804
EPS Growth	-0.029948	0.078674	-0.022804	1.000000

Source: data processed by researchers using Eviews 10 software

Based on table 6 above, using the correlation test, it can be seen that the correlation coefficient between the independent variables as a whole is < 0.9, so it can be concluded that the data in this study does not have multicollinearity problems.

Table 7. Parameter Estimation Results

Variabel	Coefficient	Std.Error	t Statistic			
ESG score	-0.046184	0.006682	-6.912209	***		
ROE	0.023007	0.005770	3.987282	***		
EPS growth	-0.016123	0.022473	-0.717442			
Debt/Asset	-1.317272	0.591892	-2.225529	**		
Variabel	**Test Statistic**	**Value**	**Prob**	**Durbin-Watson**	**R-squared**	**Adjusted R Squared**
Market/BV	F Statistic	28.3714	0.00000	1.617177	0.834647	0.805229

Description: *** significant with $\alpha < 1\%$, ** significant with $\alpha < 5\%$, * significant with $\alpha < 10\%$.
Source: data processed by researchers using Eviews 10 software

From the table above, it can be concluded that the simultaneous testing of the F test, the existing variables have a significant influence on Market/BV, both ESG score, ROE, EPS growth, and Debt/Asset. Because the probability value is close to 0. For the t test, the ESG score is close to 0, meaning it has a significant effect, from the coefficient side, the ESG variable score -0.046184 means negative. So it can be concluded that the ESG score has a significant and negative effect on Market/BV.

4.3 Discussion

ESG score has a negative effect on company performance as measured by Market/BV on companies listed on the IDX for the period 2013-2019

The results of this study indicate that the ESG score has a negative effect on firm value projected by Market/BV. This is evidenced by the p value 0 < 10%. It can be concluded that with the ESG score so far, it has not provided added value for Market/BV. The results of this study are in line with research (Ionescu et al., 2019) which states that the ESG score component, namely the environment, has a negative influence on the company's market value. The implications of financial factors are more applicable, as investors perceive the costs associated with environmental initiatives as not providing a clear benefit to the analyzed companies. The results of this study are appropriate (Han et al., 2016) which examines the effect of the ESG score on the company's financial performance in companies listed on the Korea Stock Market (KOSPI) for the period 2008-2014. In this study using the ESG score, ROE, Market to Book Ratio, and Stock Return to measure financial performance. In this study, no significant results were found from the relationship between the environment score on the ESG score component and financial performance. The pace of global economic growth will coincide with the direction of financial market developments (Baihaqqy, 2020). Financial literacy is a measurement of one's understanding of financial concepts, and the ability and confidence (Lubis, 2019).

V. Conclusion

The results of the t-test state that the disclosure of the ESG score has a significant negative effect on the company's financial performance, namely Market/BV, meaning that if the company pays attention to environmental, social and governance (ESG) factors, it does not add any added value but instead makes the company have to incur additional costs and affect negative impact on the company's financial performance.

This study has several limitations. The first is that the sample and period used in this study are still very limited, using only 55 issuers and only 6 years from 2013 to 2019. This is because not many companies have released ESG scores on a constant basis every year, because many think that this is not enough mandatory, still voluntary.

The second is the ESG score released to issuers in this study using an indicator that seems to be incompatible with the condition of issuers in Indonesia, namely the Global Reporting Initiative sustainability reporting guidelines. Thus, to get better results, it is recommended that further research can use a longer research period, which is at least 10 years. Researchers see that with a longer period of time, there is a possibility that the results of the research will have more influence on financial performance. Furthermore, research methods to see the impact of ESG on financial performance can use other methods, for example a case study that studies ESG issues more specifically, for example the issue of industrial waste, the issue of land clearing by burning.

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