ANALYSIS OF THE EFFECT OF SUSTAINABILITY ON MANUFACTURING COMPANY'S FINANCIAL PERFORMANCE IN ASEAN-5 COUNTRIES

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Abstract: *Sustainability has been a debatable topic for decades, which is why this study is conducted. Initially, sustainability was used as a corrective action and was directly related to the issue of climate change due to industrialization, so the idea of a sustainable and environmentally friendly business emerged. The effect of sustainability on the company's financial performance needs to be highlighted to prove whether sustainability activities generate competitive advantages and benefit the company or whether these activities are costly for the company. This study aims to analyze the effect of sustainability on a company's financial performance. We use Environmental, Social, and Governance (ESG) scores from Thomson Reuters Datastream to represent sustainability. The sample used in this research consists of manufacturing companies throughout ASEAN-5 countries from 2016-2020. The result revealed a significant negative effect of ESG on financial performance if ROE and OPM measure it. Environmental alone does not significantly impact financial performance, social has a significant negative effect on ROA, ROE, and OPM, and governance has a negative impact on ROA.*

Keywords: ESG, Environmental, Social, Governance, Financial Performance.

1.   Introduction

Friedman (1970) proposed a theory saying that the only responsibility of a business is to make economic gains to increase shareholders' wealth. Economic profit is indeed an essential thing for every company for the sustainability of its business. From this interest, many statements emerged stating that a company's primary goal is to make a profit (Kurniati & Yanfitri, 2010). Economic profit describes a company's financial performance, commonly measured by the profitability ratio (Rusti'ani & Wiyani, 2017). Along with the development of the global economy, driven by globalization and growing science and technology, companies are faced with a tremendous increase in demand to provide their responsibilities related to economic, social, and environmental activities more comprehensively (KPMG, 2013). As a result, in addition to having the primary goal of making a profit to build good financial performance, carrying out sustainability activities appears as an essential aspect of the company's voluntary practice (Lacy & Hayward, 2011).

Initially, sustainability was used as a corrective action. It was directly related to the issue of climate change due to industrialization, so the idea of a sustainable and environmentally friendly business emerged (Caradonna, 2014). From the concerns about climate issues, coupled with the encouragement of the development of science and technology and recent research such as Buallay (2020); Yilmaz (2021), sustainability is increasingly becoming a familiar concept and is often used in business environments. Sustainability activities can become a company's competitive advantage (Porter & Kramer, 2006; Lourenço et al., 2012), where the business must have a differentiator from its competitors. A company's competitive advantage can ultimately affect the financial performance of that company (Cantele & Zardini, 2018).

As a basis for this research, two major theories are closely related to companies' sustainability and financial performance: shareholder theory and stakeholder theory. The ideas presented in the two theories are contrary to each other. The shareholder theory proposed by Friedman (1970) states that the activities of companies other than those that focus on seeking profit or, in other words, social activities are misconceptions that will waste time and divide the company's focus in increasing shareholder profits. If this happens, shareholders will feel disadvantaged, affecting the company's financial performance. On the other hand, Freeman (1984) put forward a broader perspective in theory called stakeholder theory that companies must meet the expectations of all stakeholders to create good relationships and eventually will increase their financial performance.

Because it has a close relationship with financial performance, nowadays, companies' sustainability activities and their effect on financial performance continue to be studied by experts (Duque-Grisales & Aguilera-Caracuel, 2021). The research results are diverse, there are many pros and cons in examining how sustainability affects financial performance. Many researchers found that sustainability has a significant positive effect on companies' financial performance, for example, Eccles et al. (2014), Fatemi et al. (2015), and Yilmaz (2021). On the other hand, some experts have found that sustainability significantly and negatively affects financial performance, for example, Lee et al. (2016), Lo & Sheu (2007), and Nollet et al. (2016). In addition to its positive or negative effects, some researchers find that sustainability in no way significantly affects financial performance, for example, Galema et al. (2008), Statman & Glushkov (2011), Orlitzky et al. (2003).

The debate in the results aligns with the shareholder and stakeholder theory discussed earlier. Different research results are also very likely to occur because there are differences from various factors, for instance, the difference of the focus of the research, methods in describing sustainability, research methods, and the sample. These different angles bring differences in the research results on sustainability on financial performance and make the topic attractive. The effect of sustainability on the company's financial performance must be highlighted to prove whether sustainability activities generate competitive advantages and benefit the company or are costly. This research is one of the new studies that will contribute to prove the influence between sustainability and the company's financial performance.

As the measurement of a company's sustainability activities, this study uses the ESG scores of each company to represent the sustainability activities of a company. ESG represents the overall multidisciplinary issue of sustainability covering environmental (E), social (S), and governance (G) aspects aimed at overcoming challenges such as economic development, social activities, and environmental sustainability (Selsky & Parker, 2005). Furthermore, the company's financial performance is measured by the profitability ratio (Rusti'ani & Wiyani,

2017) consisting of Return on Assets (ROA), Return on Equity (ROE), Operating Profit Margin (OPM), and Net Profit Margin (NPM).

As previously discussed, sustainability activities can become a competitive advantage for companies, including those in the manufacturing industry that have activities in converting raw materials into finished goods or services. For manufacturing companies, sustainable competitive advantages are seen in the environment (waste generated from business processes) and social (labor health).

In recent years, many manufacturing companies have been competing to report on their sustainability activities in ESG performance reports (Caniato et al., 2012). However, the literature that examines the effect of such reporting on the performance of manufacturing companies is not yet ample (Buallay, 2019), even though the manufacturing industry is one of the significant industries whose environmental risks need to be considered, mainly because the manufacturing industry produces waste in its business operations (Cai et al., 2012). In addition, the manufacturing industry significantly impacts economic growth, which can be proven by its high contribution to GDP. It can be seen in Figure 1 that the manufacturing industry contributed 15.9% to GDP in 2020, and the industry, which includes manufacturing, construction, and other industries, contributed 26%. This contribution to high GDP signals a good quality of the industry. It is urgent to research the financial performance of manufacturing companies.

Furthermore, this research used Indonesia, Malaysia, the Philippines, Singapore, and Thailand (ASEAN-5) as the sample because these countries have potential and are the five most prominent countries in ASEAN. The first potential is in terms of the manufacturing industry, where based on the United Nations Statistics Division, Indonesia's manufacturing industry in 2016 managed to rank fourth in terms of contribution to GDP with a figure of 22% after South Korea (29%), China (27%), and Germany (23%). Further potential is quoted from the ASEAN-Japan Centre (2019) that investments who consider sustainability in ASEAN-5 have been in the spotlight of investors in recent years. ASEAN-5 is also the country with the largest economy in ASEAN, as evidenced by the GDP figures of the five countries that dominate other countries, as presented in Figure 2. It indicates that the country is experiencing strong economic growth and market competition in it is competitive (Chairman & Siregar, 2021).
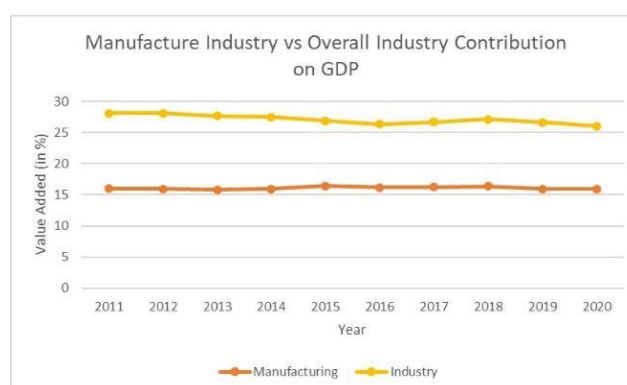

Figure 1. Manufacture Industry Contribution on GDP

Source: Worldbank, reprocessed by author (2022)

Considering the importance of sustainability and the company's financial performance this research is a new study intended to examine the effect of sustainability as measured by ESG scores and the company's financial performance as measured by ROA, ROE, NPM, and OPM. The research has novelty because no previous research uses the manufacturing industry ASEAN-5 as the research sample for this topic. Therefore, the research is expected to fill gaps of previous research and provide new insights for manufacturing companies, investors, subsequent researchers, and regulators.
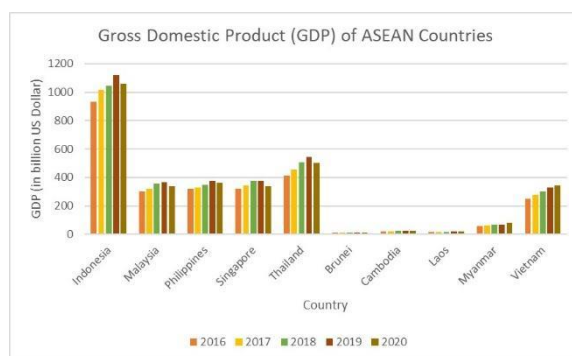

Figure 2. GDP of ASEAN Countries
Source: Statista, reprocessed by author (2022)

2.   Literature Review

As previously mentioned, two theories underlie this research: shareholder and stakeholder theory. The shareholder theory proposed by Friedman (1970) states that the sole purpose of the company is to carry out activities that generate profits for shareholders. Therefore, the mindset that companies have social responsibility needs to be clarified. Activities outside of the company's business in seeking profit are seen as a weakness that can harm shareholders' rights to the wealth they have in the company. Supposedly, corporate social activities as a contribution to society have entered the corporate tax burden. In addition to Friedman (1970), another researcher, Ward (2020), suggested that the shareholder theory considers that shareholders are the principal owners of company assets, so companies should prioritize the protection and growth of their assets for the benefit of shareholders.

Contrary to the shareholder theory by Friedman (1970), Freeman (1984) in the stakeholder theory he proposed argued that the company must consider the expectations of all stakeholders in every decision taken because having and maintaining good relations with all stakeholders ranging from employees and shareholders to the public can help in improving the company's operational and financial performance. Therefore, companies have responsibilities related to economic goals and several social and environmental responsibilities (Maas & Reniers, 2014). These benefits can be obtained because the company's sustainability activities usually lead to better internal and external decision-making, higher transparency, and upholding financial stability (Eccles & Krzus, 2015).

Both theories are widely used in research on sustainability and financial performance. Based on Brundtland (1987) and Commission on Environment and Development, sustainability is a development concept in meeting current needs (present) without reducing the ability of future generations to meet their needs in the future. According to Goodland

(1995), there are three sustainability paradigms ranging from social sustainability, which is achieved by community participation and involvement to support social capital, then environmental sustainability, which aims to improve human welfare and maintain natural capital; and economic sustainability, which refers to the maintenance of financial capital. Along with its definition, research that uses the concept of sustainability at the company level mainly focuses on three dimensions: environmental, social, and governance (Yilmaz, 2021).

The issue of the company's sustainability activities is increasingly becoming a hot topic because, first, the regulations governing the reporting of ESG activities globally and locally are still pseudo and new, especially for ASEAN-5 countries. Indonesia only issued a regulation that companies are required to report their sustainability activities in 2017, and it came into effect in 2019 for companies with specific criteria. The regulation in the Otoritas Jasa Keuangan Number 51/POJK.03/2017 concerning the Implementation of Sustainable Financial. Then for Malaysia, in early 2015, a movement was made to promote sustainable reporting by Bursa Malaysia, but the implementation of mandatory reporting of new sustainability activities since 2019 in Amendment to Practice Record 9 on The Listing Requirements. Then Singapore only started to make it mandatory in 2022 through regulations from the Singapore Exchange (SGX). In addition, Thailand has imposed reporting obligations on sustainability activities since 2017 through a statement by the Stock Exchange of Thailand (SET). Unlike the four countries already mentioned, the Philippines will only require reporting on sustainability activities from 2023, according to a statement by the Philippines' Securities and Exchange Commission (SEC). Although each country has imposed regulations regarding reporting sustainability activities, it has yet to mention the benefits companies will get if they carry out and report their sustainability activities. There are also no severe sanctions that the company will receive if it does not carry out and report on these activities.

In addition to each country's regulations regarding the reporting of sustainability activities for companies, the International Organization of Securities Commissions (IOSCO) also expressed its support for the International Financial Reporting Standards (IFRS) Foundation in the establishment of the International Sustainability Standards Board (ISSB). IOSCO supports IFRS in providing a global foundation for investor-oriented sustainability-related disclosure standards focused on corporate value creation. IOSCO supports this because it supports global consistency and comparability in sustainability-related information and forms the basis for developing an audit and assurance framework. In addition, IOSCO realizes that in reporting the company's ESG activities, there are differences in definitions in the assessment, as well as unclear transparency in conducting the assessment methodology.

Apart from the quasi-and-new regulations, the discussion of the effect of sustainability on company performance that has been studied for more than a decade (Guenther & Hoppe, 2004) has pros and cons regarding the results found. It is also the reason why this topic is significant to raise. Yilmaz (2021) focused financial performance on profitability, namely ROA, ROE, OPM, and NPM, using ESG scores in assessing company sustainability activities taken from Bloomberg. The method used was panel data regression, and the sample used was non-financial companies in BRICS countries for five years from 2014-2018. The result is that there is a positive influence between sustainability as measured by ESG scores on profitability.

On the other hand, Nollet et al. (2016) focus on looking at the effect of Corporate Social Performance (CSP) as measured by ESG from Bloomberg on ROA, RoC (return on capital), and excess-stock returns. The study used linear and U-shaped non-linear models to examine long-term influences. The sample used in this study was an S&P500 company from 2007 to

2011. This study stated a negative influence between (CSP) and corporate financial performance (CFP).

Then, Statman & Glushkov (2011) focused on CAPM values, three-factor Fama and French benchmarks, and four-factor Carhart benchmarks. To describe the sustainability of the KLD score, the Generalized Moment Method (GMM) is used, and the sample used is the DS 400 and S&P 500 index from 1992 to 2007. This study found no significant influence between sustainability and financial performance.

Hypothesis Development

It has been explained that there are two contradictory theories regarding the behaviour that companies should do. Shareholder theory reveals that companies should focus on maximizing shareholder wealth by optimizing only activities related to company operations (Ward, 2020) because the company's primary goal is to seek profit (Friedman, 1970). On the other hand, stakeholder theory gives a broader view of shareholder theory that the company also has other stakeholders who are influenced and influenced by company decisions (Freeman, 1984). From the opposite theory regarding sustainability activities and their impact on the company's financial performance, the first hypothesis of this study is:

H1 = Company's ESG activities significantly influence the company's financial performance as measured by profitability ratios.

Nowadays, the negative impacts caused by the company's production activities have received relatively great attention in practice and academically (Frempong et al., 2021), so regulations arise for companies to carry out sustainable activities, especially in protecting the environment. However, environmentally friendly activities carried out by companies sometimes have a terrible effect on their financial performance (Duque-Grisales & Aguilera-Caracuel, 2021). From there, a second hypothesis was formed that wants to be proven in the study is:

H2 = Company's environmental activities significantly influence the company's financial performance as measured by profitability ratios.

Social pillars are the second component of ESG. Cordeiro & Sarkis (1997) and Buallay (2020) said that the company's concern for the social community would lead to the company's market performance which will later affect the company's financial performance. However, Duque-Grisales & Aguilera-Caracuel (2021); Buallay (2019) in their research, found that the social component of individuals has a negative influence on financial performance, which is contrary to stakeholder theory. The third hypothesis built into this study is:

H3 = Company's social activities significantly influence the company's financial performance as measured by profitability ratios.

The third ESG pillar is governance. Stakeholder theory predicts that good corporate governance will make investors more confident to invest in companies because they believe there will be fewer takeovers by controlling bodies (Shleifer & Wolfenzon, 2002). However, some studies, such as Paniagua et al. (2018); Madanoglu & Karadag (2016), stated that

corporate governance negatively affects financial performance. The last hypothesis in the study is:

H4 = Company's governance activities significantly influence the company's financial performance as measured by profitability ratios.

3.   Research Methodology

3.1   Sample

The sample of this study is manufacturing companies in ASEAN-5 from 2016 to 2020. The companies included in the sample have an ESG score, so companies that do not have an ESG score and other necessary data completeness will be excluded from the sample. From these criteria, a composition of companies is sampled in each country, as presented in Table 1.

Table 1. Sample Companies by Country

Country	Company
Indonesia	8
Malaysia	11
Philippines	7
Singapore	6
Thailand	2
Total Company	**34**
Total Observations	**170**

3.2   Variables

The variables used in the study were divided into three; dependent, independent, and control variables. The dependent variable of this study is profitability using four proxies; Return on Assets (ROA), Return on Equity (ROE), Operating Profit Margin (OPM), and Net Profit Margin (NPM). ROA is measured by dividing net income by the average total assets of the company. ROE is measured by dividing net income by the average total equity of the company. OPM is measured by dividing net operating income by net sales, while NPM is measured by dividing net income by net sales. All four profitability proxies are presented in percent form.

Furthermore, the independent variable in this study is sustainability which is calculated using ESG scores (combined and individual scores). The ESG score is taken from Thomson Reuters Datastream, whose figures range from 0 to 100. Thomson Reuters Datastream measures each ESG component using standardized indicators and predetermined benchmarks (Refinitiv, 2021). The ESG score set in Datastream is based on three core calculation principles: relative comparison, materiality, and weight transparency. The ESG combined score is calculated using a combination of individual ESG elements (environmental, social,

governance) and ESG controversy, calculated from a combination of 10 categories. To calculate the environmental score, Datastream assesses the resources used by the company, emissions, and innovations launched by the company. The social score calculation is calculated from labour, human rights, community, and product responsibility. As for the governance score, Datastream looks at the elements of company management, shareholders, and the strategies used in carrying out CSR or corporate social responsibility (Refinitiv, 2021).

The control variables used in this study were divided into two levels, namely: the company and the country level, the proxy used is the size and level of the company's leverage, while for the country level, GDP growth is used. The company's size is measured using the natural logarithm of the company's total assets. Leverage is measured by dividing the total debt by the company's assets. GDP growth is measured using the annual change of a country's GDP.

3.3   Research Model

This study aims to examine the effect of sustainability measured by ESG scores on profitability using ROA, ROE, OPM, and NPM. Intending to test the influence between the two variables, the estimation method used is the panel data regression. Panel data is used because the dataset consists of cross-section and time series data. The ESG scores used in the following study were separated into four scores: combined ESG scores, environmental, social, and governance scores individually. Therefore, the model built in this study is as follows.

Group 1:

Model 1: $ROA_{i,t} = \beta_0 + \beta_1 TESG_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (1)

Model 2: $ROE_{i,t} = \beta_0 + \beta_1 TESG_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (2)

Model 3: $OPM_{i,t} = \beta_0 + \beta_1 TESG_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (3)

Model 4: $NPM_{i,t} = \beta_0 + \beta_1 TESG_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (4)

Group 2:

Model 5: $ROA_{i,t} = \beta_0 + \beta_1 ENVI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (5)

Model 6: $ROA_{i,t} = \beta_0 + \beta_1 SOCS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (6)

Model 7: $ROA_{i,t} = \beta_0 + \beta_1 GOVS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (7)

Model 8: $ROE_{i,t} = \beta_0 + \beta_1 ENVI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (8)

Model 9: $ROE_{i,t} = \beta_0 + \beta_1 SOCS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (9)

Model 10: $ROE_{i,t} = \beta_0 + \beta_1 GOVS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (10)

Model 11: $OPM_{i,t} = \beta_0 + \beta_1 ENVI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (11)

Model 12: $OPM_{i,t} = \beta_0 + \beta_1 SOCS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (12)

Model 13: $OPM_{i,t} = \beta_0 + \beta_1 GOVS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (13)

Model 14: $NPM_{i,t} = \beta_0 + \beta_1 ENVI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (14)

Model 15: $NPM_{i,t} = \beta_0 + \beta_1 SOCS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (15)

Model 16: $NPM_{i,t} = \beta_0 + \beta_1 GOVS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDPGR_{i,t} + \varepsilon_{i,t}$ (16)

where:
i is the manufacturing companies in ASEAN-5
t is the time period from 2016 to 2020

Group 1 is a model for analyzing the effect of total ESG on financial performance, and Group 2 is a model for analyzing the influence of each component E, S, and G on financial performance. TESG is a combined ESG score, ENVI is an environmental score, SOCS is a social score, GOVS is a governance score, SIZE is a company size, LEV is the company's leverage level, and GDPGR is GDP growth.

4. Discussion

In testing the significance of the effect of ESG on profitability, this research used 34 manufacturing companies as samples, which had been detailed earlier. The results of the descriptive statistical test of this study are presented in Table 2.

For profitability, the average value of ROA proxies is 7.93%, while the lowest value is 1.11%, and the highest is 24.27%. ROE proxies have an average of 15.63%, indicating that most companies have an average equity value lower than the average of their total assets. Hence, the average ROE is higher than the ROA. The lowest value of ROE is 2.61%, and the highest is 29.15%. Furthermore, the average value of OPM is 11.45%, with the lowest value of 3.06% and the highest of 22.31%. The OPM value is higher than NPM, with an average of 8.05%, the lowest value of 1.12%, and the highest value of 17.11%. From these values, it can be concluded that companies in a particular year with below-average profitability indicate that their financial performance is still below the industry, so it can reflect improvement in their financial performance.

Table 2. Descriptive Statistic

Variable	Obs.	Mean	Std. Dev.	Min. Value	Max. Value
Profitability					
ROA	169	0.0793	0.0692	0.0111	0.2427
ROE	170	0.1563	0.1101	0.0261	0.3915
OPM	168	0.1145	0.0612	0.0306	0.2231
NPM	170	0.0805	0.0511	0.0112	0.1711
Sustainability					
TESG	169	42.4689	19.0329	14.5047	73.7971
ENVI	169	40.6731	23.7770	5.9680	76.0272
SOCS	169	45.9694	21.8623	13.4559	83.4142
GOVS	169	42.1841	19.1346	17.0513	74.7536
Profitability Determinant					
SIZE	168	15.4167	1.0792	13.5617	17.0322
LEV	168	0.2714	0.1191	0.0708	0.4596
GDPGR	170	0.0285	0.0402	-0.0565	0.0634

Source: Author (2022)

Furthermore, for sustainability, total ESG has an average score of 42.47, with the lowest value of 14.51 and the highest of 73.80. Next, the individual environmental component averages 40.67, with the lowest score of 5.97 and the highest of 76.03. The social score above the environmental score averages 45.97, with the lowest score of 13.46 and the highest of 74.75. The Governance component averages 42.18, with the lowest value of 17.05 and the highest of 74.75. The score indicates that companies with ESG scores that are still below average, their ESG activities still need to be widely exposed. The chosen strategy may need to be corrected, so the assessment must still be more effective.

For profitability determinants, the average value of the size of the enterprise is 15.42, with the lowest value of 13.56 and the highest of 17.03. From the lowest, average, and highest value of the company size, the company used in the study has a similar size in total assets. Then for the company's leverage level, the average value is 27.14% with a relatively distant low value of 7.08% (indicating that the risk level of a particular company in the risk dataset is low). The highest value, which is also quite far away, is 45.96% (indicating that certain companies have a higher risk when compared to industries). Lastly, for GDP growth, the average is 2.85%, with the lowest value of -5.65% and the highest value of 6.34%.

After a descriptive statistical test, a model determination test was carried out using Chow, Lagrange Multiplier, and Hausman tests. The results obtained are models 1, 2, 6, 7, and 9 using the fixed effect model (FEM), while the rest use the random effect model (REM). Furthermore, a classical assumption test was carried out with multicollinearity for the ENVI variables against TESG, SOCS against TESG, and SOCS against ENVI. The issue has been solved by separately testing the variables. Models using FEM are subject to heteroskedasticity but have been improved with generalized least squares (GLS). All models are free from autocorrelation. The last stage of the analysis is a regression test whose results are listed in Table 3.

Table 3. Regression Results for All Model

Model	1) ROA	2) ROE	3) OPM	4) NPM	5) ROA	6) ROA	7) ROA	8) ROE	9) ROE	10) ROE	11) OPM	12) OPM	13) OPM	14) NPM	15) NPM	16) NPM
TESG	-0.0003	-0.00095	-0.00061	-0.0002												
	(0.112)	(0.019)**	(0.029)**	(0.341)												
ENVI					0.00024			0.00004			-0.00029			0.000069		
					(0.217)			(0.907)			(0.186)			(0.712)		
SOCS						-0.00036			-0.00096			-0.00052			-0.0002	
						(0.035)**			(0.015)**			(0.035)**			(0.414)	
GOVS							-0.00037			-0.00037			-0.00023			-0.0001
							(0.094)***			(0.349)			(0.331)			(0.625)
SIZE	-0.0119	-0.00388	-0.0153	-0.0105	-0.0279	-0.01039	-0.01627	-0.0296	-0.00212	-0.03033	-0.01508	-0.0147	-0.01498	-0.01027	-0.0103	-0.0104
	(0.34)	(0.91)	(0.044)**	(0.11)	(0.000)*	(0.400)	(0.140)	(0.034)**	(0.949)	(0.030)**	(0.047)**	(0.052)***	(0.051)***	(0.109)	(0.112)	(0.120)
LEV	-0.0049	0.0935	-0.00174	-0.0528	-0.0231	-0.00969	-0.00305	0.07304	0.0828	0.0724	0.00078	-0.00634	-0.00669	-0.0574	-0.0548	-0.0544
	(0.945)	(0.439)	(0.969)	(0.181)	(0.574)	(0.890)	(0.965)	(0.339)	(0.479)	(0.340)	(0.986)	(0.889)	(0.884)	(0.148)	(0.165)	(0.169)
GDPGR	0.16012	0.3054	0.13232	0.13605	0.18884	0.15317	0.16854	0.3571	0.2983	0.34237	0.15466	0.135997	0.17527	0.16165	0.13937	0.15198
	(0.001)*	(0.004)*	(0.025)**	(0.009)*	(0.000)*	(0.001)*	(0.000)*	(0.000)*	(0.005)*	(0.000)*	(0.009)*	(0.021)**	(0.002)*	(0.002)*	(0.007)*	(0.002)*
Obs.	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
Prob (F/Chi²)	0.0003*	0.0015*	0.0001*	0.0003*	0.0000*	0.0003*	0.0000*	0.0001*	0.0014*	0.0001*	0.0005*	0.0001*	0.0008*	0.0003*	0.0003*	0.0004*
R-square	0.1392	0.1577	0.1257	0.1813	0.3393	0.1453	0.1508	0.1174	0.1635	0.0863	0.1208	0.1105	0.1549	0.2196	0.1830	0.2074

Source: Author (2022)

From the Table 3, the significance of the model can be seen with the probability F for the FEM model and the Chi² probability for the REM model. All models in this study were significant at a significance level of 1% based on their F and Chi² probabilities. In addition to the significance of the models, the R-square value of the study ranged from 8.63% to 33.93%.

Regression test results showed that total ESG or TESG significantly negatively influenced ROE and OPM. At the same time, it could not be detected statistically significantly significant influences on ROA and OPM. The significantly negative result indicates that if TESG increases by 1, ROE and OPM will decrease by 0.0095% and 0.061%, respectively. Unfavorable results can be caused by the fact that by investing in ESG, the company will sacrifice cash flow and divert resources that should have been used for the company's operations, thereby causing a decline in financial performance.

Furthermore, environmental activities or ENVI can be insignificant to profitability. It is different from the results of other sustainability proxy tests on profitability. This difference is possible because countries in ASEAN-5 have abundant natural resources, so companies carry out more sustainable environmental activities than Latin American countries (Duque-Grisales & Aguilera-Caracuel, 2021). With this focus on the environment, the impact on financial performance will not be harmful, but it has yet to be proven that it has a good impact (not significantly proven). It is possible because the influence of sustainability on the company's financial performance, especially on profitability, will see good results for the company in the long term (Perrini et al., 2001; Triki, 2017; Velte, 2017).

For social or SOCS, it was shown that there was a significant negative relationship between ROA, ROE, and OPM. It means that if SOCS increases by 1, ROA, ROE, and OPM will decrease by 0.0359%, 0.0959%, and 0.0516%. Eweje (2006) stated that these negative results are possible because companies have a response that companies should focus on responding to the demands of the party that has the most power in the company instead of focusing on broader expectations, namely the general public so that the company carries out social activities without a good strategy and does not produce effective results on financial performance.

Significant negative relationships were found when using ROA in governance activities or GOVS. It indicates that if the GOVS score increases by 1, the ROA will decrease by 0.0372%. This result goes according to the theory put forward by Lourenço & Branco (2013); Pillai & Al-Malkawi (2018) that carrying out social activities cannot give the company a competitive advantage and, in doing so, reduces the company's financial results.

Overall, the statistically aimed result is a negative influence between TESG, SOCS, and GOVS on profitability, whereas the influence of ENVI cannot be proven. The insignificant and negative result is because in doing ESG activities, the company sacrifices cash flow and diverts resources that should be used for company operations which has an impact on reducing the financial performance (Duque-Grisales & Aguilera-Caracuel, 2021). In addition, according to Perrini et al. (2011); Triki (2017); Velte (2017), the influence of sustainability on the company's financial performance, especially on profitability, will see good results for the company in the long term. Even Ashrafi et al. (2018) define sustainability as a broader corporate responsibility activity to increase economic value in the long run. This significant negative result is also supported by the way the company's sustainability program is delivered, and its reciprocity is indirect, as stated by (Buallay et al., 2021; Cordeiro & Sarkis, 1997) that sustainability will produce good results for the company through the brand image and good perspective that

stakeholders have for the company. From the brand image and perspective, sustainability will positively influence the company's financial performance.

The size of the company (SIZE) in this study significantly negatively influences profitability, indicating that smaller companies tend to have good financial performance. The level of company leverage (LEV) in this study cannot be proven to influence profitability, while the growth of GDP (GDPGR) has a significant favorable influence on profitability. The significant positive influence of GDPGR indicates that a company operating in a country with an excellent economic growth rate tends to have higher profitability.

5. Conclusion

This study aims to prove the significant influence between sustainability (represented with ESG) and profitability. Total ESG is shown to have a significant negative influence on profitability when measured by ROE and OPM. Likewise, social has a significant negative influence on profitability when measured by ROA, ROE, and OPM. Governance also has a significant negative influence on profitability when measured using ROA. These significant negative results indicate that the better a company's overall ESG, social, and governance activities, the more its financial performance will decrease. Unlike the other three sustainability proxies, the environmental influence on profitability cannot be proven, which indicates that individual environmental activities do not influence the rise or fall of a company's financial performance. From the results, it can be concluded that the study is in line with the shareholder theory, which indicates that the company's activities outside of seeking economic benefits and increasing the wealth of shareholders do not have a good impact or even have an impact in decline in the company's financial performance (Friedman, 1970).

This study has some limitations. Mainly the limitations are present in ESG measurements taken from Thomson Reuters Datastream, which may still need to improve in ESG score calculations. Furthermore, the data is not extensive because manufacturing companies in ASEAN-5 have yet to report their ESG activities, so out of 572 public companies in the manufacturing industry, this study can only use 34 companies. The implementation that companies are required to have ESG reporting is still very new and uneven.

With these limitations, further study can conduct studies on related topics using other ESG measurements. Furthermore, researchers should also use a sample of developing countries with mature regulations to report ESG activities for companies so that ESG scores are better used. Furthermore, the research results can be helpful for manufacturing companies in understanding the influence of ESG is indirect on financial performance and is a long-term investment of the company so that companies can evaluate ESG activities that have been implemented to be more effective. Investors can also use this research to include in the analysis when determining the company, they want to invest in. Investors can see as far and effectively as possible the ESG activities of a company that, in the future, will provide benefits for the company and investors themselves as owners. Finally, regulators can use this research to encourage companies to conduct ESG activities more effectively and report them by establishing ESG reporting as mandatory and clarifying the incentives companies will get. Furthermore, regulators can make agreements in determining these things so that sustainability issues, especially in ASEAN-5, are no longer questionable things that will benefit the company by becoming a competitive advantage or even costly activities. If this is done, the company's

ESG assessment will be more standardized so that the results of subsequent studies on ESG and financial performance can provide more in-depth and reliable insights.

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