

Relationship between Environmental, Social, and Governance (ESG) Performance and Corporate Debt Levels in ASEAN

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ABSTRACT

This research aims to analyze the relationship between Environmental, Social, and Governance (ESG) Performance, proxied through ESG scores and corporate debt levels in ASEAN. Previous research has focused more on the influence of ESG performance on financial performance, but not many have examined the impact of EGS performance on company debt levels. This research also uses Covid-19 as a moderating variable in the relationship between ESG and company debt levels. The ESG scores used in this study were obtained from Eikon Refinitiv. This research sample consists of 944 company years originating from 325 companies listed on the capital markets of 7 ASEAN countries during 2017-2021. This research shows that ESG performance is positively and significantly related to company debt levels. This indicates that companies with better ESG performance can obtain more debt. Another result of this finding is that the COVID-19 pandemic does not affect the relationship between ESG performance and company debt levels. This research is expected to fill the gap in existing research regarding the influence of ESG performance on company debt levels by considering the COVID-19 factor. The limitation of this research is that very few companies in ASEAN have ESG scores. This will create the possibility of differences in results if similar research is carried out with data from countries outside the ASEAN region.

Keywords:

Sustainability Performance, ESG, Firm Debt Level, Covid-19, and ASEAN.

1. INTRODUCTION

One of the concepts that continues to be campaigned in today's world is Sustainable Development. Sustainable Development is the idea or concept that humans must be able to meet our current needs without sacrificing the ability of future generations to meet their own needs. The concept of sustainability, in general, can be described as a combination of three aspects, namely the environmental aspect: environment, social, and economy (Keiner, 2005). The idea of sustainable development is currently widely adopted in various parts of the world, including in ASEAN. Several things have made the implementation of ESG in ASEAN gain momentum, including ASEAN's unique geographical location and rapid growth in ASEAN countries. Balancing environmental sustainability and economic



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development is more difficult than in other regions. The financial prospects in ASEAN are also quite promising when judged by the rapid GDP growth. Still, it will harm if the financial prospects are pursued at the expense of environmental and social capital, ultimately hindering future development.

Climate change in recent years and the adverse effects of unsustainable consumption practices will also drive the ASEAN region's increasing vulnerability to extreme weather events that further fuel economic and social catastrophe (Gracia & Siregar, 2021). As sustainability issues grow, pressure from stakeholders on companies to adopt sustainable behavior and provide adequate sustainability practice reports is also increasing (Raimo et al., 2021). In sustainability reporting, information about the environment, social, and governance (ESG), abbreviated as ESG, is disclosed in annual report documents and sustainability reports (Wensen et al., 2011). In response to this, since the past few years, some ASEAN countries have begun to regulate the disclosure of sustainability performance that companies have carried out. With the regulation on sustainability performance disclosure for companies in ASEAN, these companies must pay more attention to their investments and activities in sustainability activities. Investing in sustainability activities for companies undeniably costs a considerable amount.

The investment will also absorb quite a lot of the company's resources, ultimately impacting profits that can be distributed to shareholders. However, investment in sustainability activities is a long-term investment, where the company will not be able to feel the impact directly but will receive the benefits in the future. There are several positive impacts of sustainability practices that companies will obtain, one of which is that companies with higher ESG performance have a lower cost of equity capital (El Ghoul et al., 2001). ESG also has a positive impact on reducing company risks and is also able to increase company value (Albuquerque et al., 2019). Oliva (2023) also stated that ESG has several benefits for companies, including the company getting a positive image from the public and easier access to capital.

The ease with which companies can access capital will certainly affect the structure and composition of the company's capital. Generally, companies have two types of capital to carry out their business activities. The first type of capital is internal capital, which comes from the source of wealth of the company owner and the company's profits. The second type of capital is external capital, which comes from other than the company's wealth, one of which is debt. Debt in a company has a fairly important role. The use of greater debt in a company's capital structure is also a mechanism to reduce agency cost significantly since debt can reduce the need for equity financing and reduce conflicts of interest between managers and shareholders (Salehi et al., 2017).

After the global financial crisis 2008, the international debt level increased to 318% of Gross Domestic Product (GDP) in 2018 from 292% in 2008 (Abraham et al., 2020). The most significant contributor to the surge in global debt is non-financial corporate

debt (Abraham et al., 2020). In line with the increase in global debt, the Corporate Green Bond market has also shown relatively rapid development in recent years. Corporate Green Bonds are bonds issued by companies committed to financing green and climate projects, such as renewable energy, green buildings, or resource conservation (Flammer, 2021). In 2013, the total amount of Corporate Green Bonds issued was 5 billion US dollars. This amount jumped to 95.7 billion dollars in 2018 (Flammer, 2021). The rapid increase in the Green Bond market indicates that current stakeholders have begun to pay attention to and consider the company's sustainability practices. The continued growth of the Green Bond market shows that companies that practice sustainability practices can quickly obtain funding for new projects due to the trust of stakeholders (Bhutta et al., 2022).

In the relationship between ESG performance and the level of corporate debt, of course, some other factors or things can affect this relationship, one of which is the Covid-19 Pandemic. During the Covid-19 pandemic in 2020 and 2021, the company's ability to obtain external funding sources in the form of debt is essential. The Covid-19 pandemic paralyzed all economic joints, making many parties, even large companies, experience financial difficulties. Many companies during the Covid-19 pandemic have drastically reduced their revenue while still having to fulfill their obligations to employees and creditors. This will undoubtedly decrease the company's liquidity and solvency, which, if not handled immediately, will bring the company to bankruptcy.

Roosdiana (2021), in his study on the impact of Covid-19, stated that there was a significant difference in financial ratios in the form of company solvency ratios before and after the announcement of Covid-19 cases. In such difficult conditions, of course, it will be interesting to see further whether the company's investments in various things before the pandemic, one of which is investment in sustainability programs, can make the company survive through difficult times. Until now, there have been several studies on the influence of ESG in the Covid-19 period, one of which is research conducted (Wenzhi, et al, 2021).

The study concluded that Corporate Social Performance can increase loyalty and strengthen bonds with stakeholders, making workers, suppliers, and customers more willing to adjust to support businesses during the Covid-19 pandemic. Until now, research conducted to obtain empirical evidence on the relationship between ESG performance and the level of debt companies own is still limited. The recent Covid-19 pandemic has also made there is still limited research that discusses the impact of Covid-19 on the relationship between ESG performance and corporate debt levels. This makes the relationship between ESG performance and the company's debt level by including the impact of the Covid-19 pandemic in it interesting to be further researched.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT ESG Performance and Corporate Debt Levels

Environment Social Governance (ESG) is a standard for companies in investment practices to integrate and implement corporate policies that align with environmental, social, and governance (Qodary & Tambun, 2021). ESG was previously a non-financial element but has emerged as a core value of companies, large financial institutions, and shareholders worldwide. ESG is deeply considered in the core management strategies companies must implement for sustainable management and investment. Notably, since the outbreak of COVID-19 in 2019, “environmentally friendly,” “social values,” and “ethical behavior” have become the central policies of the government. ESG has become an essential element that consumers, businesses, and civil society are looking for in a product, and the demand for ESG management continues to increase (Kandpal et al, 2024).

Applying the ESG concept in companies will provide various benefits if reviewed from several existing theories. Stakeholder theory states that companies must also pay attention to stakeholders’ interests in addition to thinking about one’s interests (Gibson, 2020). In this theory, it is also said that the company can use information about the performance of a company’s.

H1: ESG performance is positively related to the company’s debt level.

The Relationship Between ESG Performance and Debt Levels During the Covid-19 Pandemic

The COVID-19 pandemic has had various impacts on the company, including a sudden decline in sales and cash turnover, which resulted in serious liquidity and solvency problems. Companies experiencing cash flow shortages due to Covid-19 will seek more external funds to manage their liquidity needs (Halling et al., 2020). In such conditions, companies with high levels of debt will be more vulnerable to a higher risk of bankruptcy because they are more financially inflexible (Bai & Ho, 2022). There are two opinions regarding ESG performance during Covid-19, the first is that ESG significantly reduces the risk of companies with excessive debt during the Covid-19 crisis and protects them from market depressions (Huang & Ye, 2021). This means that the benefits of ESG during the Covid-19 period have increased, so companies can take advantage of it to obtain more significant external funding to survive the Covid-19 pandemic.

The second opinion states that the crisis leads to more severe agency problems and companies with better ESG performance suffer a more significant decline in corporate value (Buchanan et al., 2018). The Covid-19 pandemic has weakened the benefits of ESG performance, the decline in the company’s value during Covid-19 will certainly make prospective creditors more cautious when providing funding to the company. Based on these things, the hypothesis formulation is:

H2: The Covid-19 pandemic has affected the positive relationship between ESG performance and corporate debt levels.

3. RESEARCH METHODS

Data

This study uses a sample of companies listed on the exchanges of ASEAN countries, namely Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam, from 2017 to 2021. ESG score data was obtained from Eikon Refinitiv, while data on the company's debt level was obtained from processing results. The selection of samples in this study uses the purposive sampling method, where the samples are selected by setting specific criteria appropriate for this research. The sampling criteria for this study are:

- a. Companies listed on the exchanges of ASEAN member countries from 2017 to 2021;
- b. Companies that have an ESG score between 2017 and 2021;
- c. Companies that have complete financial information from 2017 to 2021.

Using this method, a sample of 944 company-year observations was obtained. The sample consists of 325 companies listed in the capital markets of ASEAN countries.

Research Model

The research model to determine the relationship between ESG performance and corporate debt levels refers to previous research conducted by Bai & Ho (2022). Further Bai & Ho (2022) examines the relationship between Corporate Social Performance (CSP) and corporate debt levels by focusing on the ongoing COVID-19 pandemic. The relationship between ESG performance and corporate debt levels will be tested with the first equation model as follows:

$$MLEV_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 PROF_{i,t} + \beta_3 TANG_{i,t} + \beta_4 LIQ_{i,t} + \varepsilon_{i,t}$$

Information:

- MLEV_{i,t} : The Market Debt Ratio measures the company's debt level
ESG_{i,t} : ESG Score
PROF_{i,t} : EBITDA divided by total assets
TANG_{i,t} : Net PPE divided by total assets
LIQ_{i,t} : Current Asset to Total Asset (CATA) Ratio

The estimation model used in this study is the Random Effect Model. This study also included the country fix effect to control the correlation between times between countries.

To see the relationship between ESG performance and debt levels during the Covid-19 Pandemic, a test will be carried out using the second equation model as follows:

$$MLEV_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_1 COVID_{i,t} + \beta_3 ESG_{i,t} * COVID_{i,t} + \beta_4 PROF_{i,t} + \beta_5 TANG_{i,t} + \beta_6 LIQ_{i,t} + \varepsilon_{i,t}$$

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Information:

MLEV_{i,t} : The Market Debt Ratio measures the company's debt levelESG_{i,t} : ESG ScoreCOVID_{i,t} : Dummy, 1 for the year affected by Covid-19, 0 for othersPROF_{i,t} : EBITDA divided by total assetsTANG_{i,t} : Net PPE divided by total assetsLIQ_{i,t} : Current Asset to Total Asset (CATA) Ratio**172**

The Covid-19 variable is a dummy variable that indicates the period during the pandemic and after the covid-19 pandemic, the value of 1 symbolizes the period during the pandemic and 0 for the period before the covid-19 pandemic. In March 2020, the WHO issued an official declaration declaring Covid-19 a Global Pandemic. The WHO declaration was then followed by the announcement of ASEAN countries related to Covid-19. Malaysia began enforcing the Movement Control Order (MCO) for the first time in March 2020 to tackle the spread of Covid-19. Indonesia declared Covid-19 a national disaster in April 2020 through Presidential Decree of the Republic of Indonesia Number 12 of 2020. Singapore, in April 2020, also began implementing "circuit breaker measures" in the form of a partial regional lockdown to stem the spread of the COVID-19 virus. Based on the above events, 2020 was determined as the beginning of the Covid-19 pandemic period in this study.

4. RESULTS AND DISCUSSION**Descriptive Statistics**

The number of observations in this study is 944 years of the company. The dependent variable tested in this study is the corporate debt proxied by the Market Debt Ratio (MLEV). Table 4.2 shows that the lowest value for the debt level variable is 0.015%, namely the company Hana Microelectronics PCL from Thailand in 2021, while the highest is 97.2%, namely Thai Airways International PCL from Thailand in 2020.

In this table (Table 1), the numbers located at the top of the row reflect the coefficient value, while the numbers in parentheses at the bottom reflect the p-value value. The * symbol is used to indicate the level of statistical significance at the 5% level.

ESG Performance and Corporate Debt Level

The relationship between ESG and corporate debt levels in this study was tested with Model 1. Based on the regression results in Model 1, which can be seen in table 3, it is known that ESG Performance in companies in 7 ASEAN countries has a positive influence on corporate debt levels. This is evidenced by the ESG coefficient of 0.002, which is statistically significant at the level of one percent. These results support hypothesis 1 of this study, which states that ESG performance is positively related to the level of corporate debt.

The regression results of ESG performance on the company's debt level are also consistent with previous research (Bai & Ho, 2022) which concludes that companies that have better sustainability performance, use more debt than other companies. The regression results in table 3 and also the results of the previous study, indicate that companies with better ESG performance tend to have the advantage of getting debt more quickly than other companies. This can also be an indication that ESG performance is also one of the points in the evaluation of the risk profile carried out by creditors before granting debt, where companies with better ESG performance will have lower risk and be able to get more loans.

The regression results of Model 1 shown in Table 3 are also supported by research conducted by Gracia et al. (2021), which states that sustainability practices have a statistically negative effect on debt costs in ASEAN countries. With the decrease in the price of debt for companies with better ESG performance, these companies can have more debt.

Table 1. Variable Correlation

	MLEV	ESG	COVID	PROF	TANG	LIQ
MLEV	1.00000					
ESG	-0.01330	1.00000				
	0.68240					
COVID	0.03700	-0.04240	1.00000			
	0.25560	0.19320				
PROF	-0.5085*	0.03720	-0.01770	1.00000		
	0.00000	0.25310	0.58790			
TANG	-0.03780	0.01330	-0.03170	-0.00810	1.00000	
	0.24570	0.68430	0.33060	0.80380		
LIQ	-0.2842*	-0.0936*	0.1009*	0.3310*	-0.3281*	1.00000
	0.00000	0.00400	0.00190	0.00000	0.00000	

Source: Data Processed, 2024

Tabel 2. Descriptive Statistics

Variabel	Obs	Mean	Std. Dev.	Min	Max
MLEV	944	0,3151	0,2364	0,0002	0,9728
ESG	944	526,744	170,306	57,005	920,515
COVID	944	0,5922	0,4917	0	1
PROF	944	0,0616	0,0789	-0,0402	0,4520
TANG	944	0,3368	0,2296	0,0000	0,8894
LIQ	944	0,3407	0,1930	0,0067	0,9527

Source: Data Processed, 2024

Table 3. Regression Test Result

Variabel	ESG	Covid-19
	Model 1	Model 2
ESG	0.0020 (0.000***)	0.0007 (0.0605*)
COVID		0.0113 (0.3085)
ESG*COVID		0.0005 (0.1265)
PROF	-0.5703 (0.000***)	-0.4812 (0.000***)
TANG	-0.0570 (0.135)	-0.0755 (0.0675*)
LIQ	-0.1555 (0.0015**)	-0.1758 (0.001***)
Konstanta	0.0518 (0.188)	0.1183 (0.015*)
N Observasi	944	944
Prob > F	0.0000	0.0000
R Square	20.56%	23.08%
Country FE	Ya	Ya

Source: Data Processed, 2024

Table 3 displays the results of the regression test of the relationship between ESG performance and corporate debt levels in model 1, as well as the influence of Covid-19 on the relationship between ESG Performance and corporate debt levels in model 2. The dependent variable in the test is MLEV, the independent variable is ESG and COVID as the moderation variable in model 2. The number located at the top of the row reflects the value of the coefficient, while the number in parentheses at the bottom of the row reflects the p-value value. The symbols *, **, and *** are used to indicate the level of statistical significance at the 10%, 5%, and 1% levels respectively.

The regression results of Model 1 are also in line with hypothesis 1. According to agency theory, disclosing information about sustainability performance can help reduce agency issues and information asymmetry between companies and lenders. This can improve the ability of lending institutions to assess default risk more effectively (Raimo et al., 2021). According to stakeholder theory, currently, lending institutions have integrated sustainability performance information into their credit evaluation process (Eliwa et al., 2021). By using information about ESG performance as one of the points to determine the company's risk by lending institutions, good ESG performance will decrease the company's risk and allow the company to get the maximum loan value.

Discussion

The Relationship Between ESG Performance and Debt Levels During the Covid-19

Model 2 in this study examines the relationship between ESG performance and corporate debt levels during the Covid-19 pandemic. The Covid-19 pandemic in model 2 is used as a moderation variable to determine its influence on the relationship between ESG and corporate debt levels. Based on the regression results in Table 3, ESG performance interaction with COVID-19 variables positively influenced the company's debt level, but the effect was not statistically significant. This is shown by the ESG*COVID coefficient, which has a positive value of 0.0005 and a p-value of 0.1265. This result does not align with hypothesis 2 in this study which states that the Covid-19 pandemic affects the positive relationship between ESG performance and corporate debt levels.

Although based on the results of the regression of the COVID variable, it is not statistically significant, the value of the positive coefficient is in line with the opinion of Huang et al. (2021), which states that ESG reduces the risk of companies with high debt during the Covid-19 crisis and protects the company from negative impacts on the market. This can be interpreted as the benefits of ESG during the COVID-19 pandemic increased, which allowed companies to take advantage of it to get more external funding sources to survive during the COVID-19 pandemic. The positive impact is also in line with Lins et al. (2017), who state that ESG practices keep companies immune during periods of crisis. As a result, during the crisis, companies with good ESG have higher profitability, growth, and sales and can increase their debt levels.

The positive influence of COVID on the relationship between ESG and debt levels is also in accordance with what is stated in the legitimacy theory. In the legitimacy theory, it is stated that the disclosure of sustainability activities is considered to be useful for restoring, improving and maintaining the legitimacy that has been received. The legitimacy that the company receives from the public can be used by the company to continue to get loyalty from customers during the Covid-19 crisis. This customer loyalty is used by the company to convince lending institutions to provide a higher loan value to the company. Although the positive impact of the COVID variable is in accordance with previous research and one of the theoretical foundations used in this study, because the impact is not statistically significant, it can be said that the Covid-19 pandemic has no effect on the positive relationship between ESG performance and corporate debt levels.

5. CONCLUSIONS AND SUGGESTIONS

This study aims to find out the relationship between ESG performance and corporate debt levels and to find out whether the Covid-19 pandemic affects the relationship between ESG and corporate debt levels. Based on the results of the regression model test and analysis that has been carried out, it is concluded that

ESG performance in ASEAN companies has a positive effect on corporate debt levels. Companies with better ESG performance have more debt. The company's ESG performance can make it easier for the company to get more debt. Furthermore, the test results also show that the Covid-19 pandemic factors between 2020-2021 do not affect the relationship between ESG and corporate debt levels.

From the results that have been described above, it is hoped that the results of this study will be able to provide adequate information about the relationship between ESG performance and the level of ease with which companies can obtain funding so that it can encourage for companies to continue to increase awareness of sustainable activity practices and social Responsibility. companies in the ASEAN region. ASEAN countries are relatively new countries in the implementation of policies related to sustainability issues. This can be seen by the small number of companies that have ESG scores. This limitation will allow different results if similar research is carried out with data from countries outside the ASEAN region. Therefore, for further study, the range of samples can be expanded by considering companies in other areas outside ASEAN to be used as research samples or can also use different methodologies in future research.

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Appendix A. Definition of Variables

Variabel	Akronim	Definition	Data Source
Corporate Debt Level	MLEV	Total book value of debt divided by the sum of the book value of debt and equity of the company	Author's own calculations
ESG Score	ESG	The ESG score measures a company's ESG performance based on reported and verifiable data in the public domain.	Eikon Refinitiv
Covid-19 Pandemic	COVID	The dummy variable, a value of 1 symbolizes the period during the pandemic and 0 for the period before the Covid-19 pandemic	Author's own calculations
Profitability	PROF	net profit before discontinued Operations divided by total assets at the end of the period	Author's own calculations
Tanggibility	TANG	Total fixed assets divided by total assets	Author's own calculations

Source: Data Processed, 2024