

# The Influence of Environmental, Social, Governance (ESG) and Green Innovation on Company Business Performance

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Article Info	Abstract
<p><b>Keywords:</b> ESG; Green Innovation; Company's business performance;</p>	<p>The research aims to provide empirical evidence on the relationship of ESG and green innovation to company's business performance. The independent sample of this research is ESG was measuring ESG score. Dependent variables green innovation were measures using innovation of green product and innovation of green process. Sampling used in this research is purposive sampling technique. The sample of this research consisted of 66 manufacturing companies from 2016 to 2021. The data collected was analyzed using panel data regression analysis. This result shows that ESG positively influence business performance proxied by Tobin's Q and ROA unsupported. Green Innovation, which is proxied by green product innovation on the company's business performance, shows mixed results. Where green product innovation positively influence the company's business performance proxied by ROA. Conversely, green product innovation does not influence company's business performance proxied by Tobin's Q. Meanwhile, Green Innovation proxied by Green Process innovation effect on the company's business performance is not supported. Thus, it can be seen that ESG has not become a concern for investors in Indonesia, as evidenced by the limited number of public companies that disclose ESG scores. Green Innovation which is proxied by green product innovation and green process innovation shows mixed results which shows that customers are also considering purchasing products from companies whose innovations produce environmentally friendly products.</p>
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## 1. Introduction

The company's growing business activities have an increasing impact on environmental pollution. Walhi noted that up to 2022, various environmental pollution events will occur (accessed [www.walhi.or.id](http://www.walhi.or.id)). Cases of environmental pollution are increasing, showing that companies should not only aim to make a profit, but companies should also pay attention to the surrounding environment. In 2017, the Government through the Financial Services Authority or Otoritas Jasa Keuangan (OJK) issued the regulation for financial services authority, namely Peraturan Otoritas Jasa Keuangan (POJK) Number 51/Pojk.03/2017 which concerns to the sustainable finance implementation for financial services institutions, issuers, and other public companies. This means that annual sustainability reporting and its submission to the regulator and OJK are mandatory for public companies.

Disclosure of sustainability information required by the Government is in accordance with the Environmental, Social, Governance (ESG) concept. ESG implements business activities and sustainability with investment through environmental, social and governance, which are called three main pillars. This means that the company will prioritize the principles of environmental

concern, social responsibility and good governance (Kusumayudha, 2022). ESG disclosure is thought to have a significant impact on the company's business performance. This means that investors will be more interested in companies that have the trust of the public regarding the implementation of good ESG performance (Behl et al., 2022). The increase in high public trust drives the company's business performance to be even higher (Kurnia, 2019).

*Green innovation* is one strategy that can be used by companies as a form of responsibility towards the environment and society by managing environmentally friendly operational activities. Apart from that, green innovation is an innovation concept that aims to increase productivity and cost efficiency, improve financial performance, reduce negative impacts arising from operational activities, and create competitive advantages for companies. (Agustia et al., 2019). Green innovation encourages companies in processing the waste and transforming into products that can provide additional benefits for the company. According to Reuvers (2015) Green innovation is a process of developing, producing and improving a product by reducing the impact of environmental damage. Furthermore, Chen et al. (2006) divides the green innovation strategy into two, namely green product innovation and green process innovation.

The company's business performance is the results achieved and obtained by the company (Simeth & Cincera, 2014). In addition, the company's business performance is an assessment by other parties of the performance of company management in managing company resources (Plumlee et al., 2015). Implementing an environmental strategy will be able to bridge environmental interests and economic interests, so that it can improve the company's business performance (Agustia et al., 2019).

Legitimacy Theory states that companies should not only pay attention to the interests of investors but also pay attention to the interests of the public in general (Deegan & Rankin, 1997). Furthermore, they stated that Legitimacy theory implies the existence of a social contract between companies and the surrounding community. In this case the company will utilize available resources. Companies carry out social contracts based on the fact that the company's operational activities are in line with the interests of society. Therefore, disclosing non-financial information in the form of environmental activities carried out by the company is a form of the company's responsibility for the utilization of existing resources. Therefore, ESG and green innovation help companies to gain legitimacy from society. Increasing legitimacy from the community will improve the company's business performance.

Stakeholder Theory assumes that a group of stakeholders can influence management behavior (Freeman & Reed, 1983). Stakeholders consist of individuals or groups, namely customers, employees, suppliers, or government agencies. They can influence or be influenced by the company's goals. This theory suggests that a company is not an entity that operates only for its own sake, but must be beneficial to stakeholders. Therefore, disclosing environmental information as a company need is an effort by company management to identify ways to fulfill the needs of information to stakeholders. The argument underlying the importance of information for stakeholders is that the survival of the company does not only depend on shareholders but also depends on the support provided by all stakeholders. Disclosure of ESG and green innovation information can expand a company's business strategy due to its efforts to meet stakeholder demands in company activities (Ainy & Barokah, 2019).

This research is motivated by research Putri Fabiola & Khusnah's (2022) However, to distinguish this study from previous research, this research examines the influence of ESG and Green Innovation on company business performance. The selection of ESG variables is based on the fact that ESG is a variable that does not only discuss the environment but includes three aspects, namely environmental, social and governance. (Kusumayudha, 2022) Another difference is that in the aspect of measuring the company's business performance, in previous research only used ROA, but in this research, Tobins Q was used to measure the company's business performance. Apart from that, there are other differences based on the sample company, in this study the samples tested were all companies except non-financial ones.

Based on the explanation above, the author is interested in providing empirical evidence that ESG and Green innovation influence company business performance. By conducting research entitled "The Influence of ESG and Green Innovation on Company Business Performance" on non-financial companies listed on the Indonesia Stock Exchange (BEI) in 2016-2021.

### Hypothesis Development

The results of previous research examining ESG on company business performance were carried out by Behl et al., (2022). They provide evidence that ESG has a negative and significant effect on company value in the short term but in the long term it has a positive and significant effect on the company's business performance. Besides that, Melinda & Wardhani (2020) provides evidence that ESG performance has a positive and significant effect on company market performance. Likewise the research results Husada & Handayani (2021) provides evidence that there is a positive relationship with company value. Meanwhile, the results of research that tests green innovation on company business performance include: Dewi & Rahmianingsih, (2020), Damas et al., (2021), And Putri Fabiola & Khusnah's (2022) states that green innovation has a positive effect on the company's business performance. Next, research results. Then, research results Mariyamah & Handayani (2020) found that the innovation of green product and green process positively influence business performance.

Study of Behl et al., (2022) testing ESG against interim company value Melinda & Wardhani (2020), Husada & Handayani (2021), Dewi & Rahmianingsih, (2020), Damas et al., (2021), Putri Fabiola & Khusnah's (2022) And Mariyamah & Handayani (2020) testing the green innovation variable on market performance. This research is different from previous research because it carries out more comprehensive testing, namely by testing ESG and green innovation variables on company business performance which is measured using market performance and accounting performance measures.

Legitimacy theory suggests that environmental activities carried out by companies are the company's responsibility so that companies have an interest in aligning their actions with social norms in society. In addition, Stakeholder theory suggests that companies have a role in increasing environmental awareness and considering stakeholder demands in company activities. Lako (2018) states that companies that have high concern for society regarding social responsibility issues will influence company performance. Investors will be more interested in companies that have carried out good environmental, social and governance performance (Behl et al., 2022). Thus, high interest from investors to invest in companies that care about the environment and social matters and are supported by good governance will have a significant impact on increasing the company's business performance. (Kurnia, 2019). Research result Behl et al., (2022), Melinda & Wardhani (2020), And Husada & Handayani (2021) shows empirical evidence that ESG has a positive and significant effect on company performance. The underlying argument is that ESG aims to minimize the impact of damage resulting from a company's business activities on the environment, which ultimately improves the company's future business performance. Based on this explanation, the researcher will conduct research with the following hypothesis:

**H1: ESG has a significant positive effect on company business performance.**

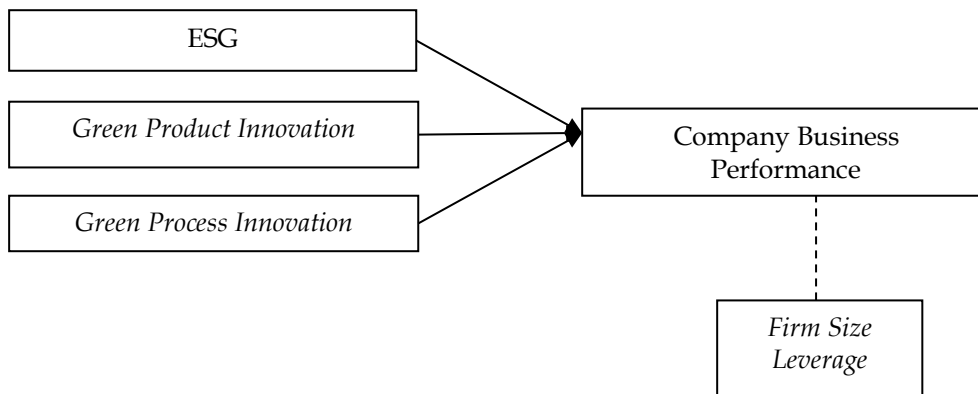
The company's main goal is not only to create value for shareholders but also to create value for all stakeholders. To achieve this goal, companies need management who are able to understand that disclosing non-financial company performance information such as environmental, social and governance performance is able to improve the company's business performance because non-financial information is related to the company's continued performance in the future (Agustia et al., 2019). Legitimacy Theory suggests that a company can continue to survive if the company is able to synergize business processes with the norms that apply in society (O'Donovan, 2002). One effort to align business processes with norms is through green innovation. Green innovation aims to minimize the impact on the environment so that it can ultimately improve the company's business performance. Research result Husnaini & Tjahjadi (2020), Putri Fabiola & Khusnah's

(2022), Dewi & Rahmianingsih, (2020), Husada & Handayani (2021) Mariyamah & Handayani (2020) found evidence that green innovation has a positive and significant effect on company business performance. Based on this explanation, this research proposes a hypothesis, namely:

**H2a: green product innovation has a significant positive effect on the company's business performance**

**H2b: green process innovation has a significant positive effect on the company's business performance**

The following is a research model:



**Figure 1. Research Model**

## 2. Research Methods

This research is a quantitative study using secondary data. The technique for sampling used in this study was purposive sampling with criteria namely (1) all companies registered on the IDX for the 2016-2021 period, (2) the company has an ESG score for the 2016-2012 period, and (3) the company publishes an annual report for the 2016-2021 period. The sample consists of non-financial companies listed on the Indonesia Stock Exchange (BEI) for the period 2016-2021. Based on the criteria, a total of 66 company-year observations were obtained. Choosing a long observation period is expected to get better results. This research uses secondary data obtained from Datastream Eikon Refinitiv database subscribed to by the Faculty of Economics and Business, Andalas University, and the company's annual report.

The independent variables consist of first, ESG, which is a representation of the company's score which includes environmental, social and governance. ESG is proxied by the ESG score. ESG scores are obtained from the Eikon Refinitiv database. Meanwhile, the second variable is green innovation which is measured by the measurement of innovation of green product and green process.

*Green product innovation* is how companies choose product materials that have the minimum possible impact on pollution and pay attention to the ease with which products can be recycled, reused or broken down. The measurement of green product innovation in this research follows Peters (2005) that is :

$$GIProd = \frac{NCF0_{i,t} - NCF0_{i,t-1}}{sales_{i,t}}$$

*Green process innovation* namely the creation of production methods that are better than previous methods, namely related to saving energy, preventing pollution, and recycling waste as well as savings in the use of raw materials. The measurement of green process innovation in this research follows Peters (2005) that is :

$$GIProcess = \frac{(\text{Beban Energi}_{i,t} + \text{Beban BB}_{i,t}) - (\text{Beban Energi}_{i,t-1} + \text{Beban BB}_{i,t-1})}{\text{sales}_{i,t}}$$

The dependent variable for the company's business performance is business performance based on the performance of market and performance of accounting. Business performance is measured by Tobin's Q and ROA. The company's business performance as a proxy for ROA is measured by dividing net profit and total assets. Meanwhile, the company's business performance as proxied by Tobins Q follows the model Chung & Pruitt (1994).

$$\text{Tobin's Q}_{i,t} = \frac{MVCS_{i,t} + STL_{i,t} - STA_{i,t} + BVLD_{i,t}}{BVTA_{i,t}}$$

This research uses control variables which aim to test the sensitivity and consistency of the overall test results. Logarithm of company's total assets are the measurement for firm size, and total debt divided by total assets is the measurement for leverage. Firm size and leverage are assigned as control variables in this study. This research uses panel data regression analysis. Hypothesis testing is carried out using the E-views analysis tool. The regression equation model is as follows:

$$KBP_{i,t+1} = \alpha + \beta_1 ESG_{i,t} + \beta_2 gproduct_{i,t} + \beta_3 gprocess_{i,t} + \beta_4 firmsize_{i,t} + \beta_5 lev_{i,t} + \varepsilon$$

Information:

$KBP_{i,t+1}$	=	Company i's business performance in year t+1
$\alpha$	=	Constant
$\beta_1 - \beta_5$	=	Regression coefficient
X1	=	ESG of company i in year t
X2	=	<i>Green Product Innovation</i> company i in year t
X3	=	<i>Green Process Innovation</i> company i in year t
X4	=	<i>Firm Size</i> company i in year t
X5	=	<i>Leverage</i> company i in year t
$\varepsilon$	=	Error

Estimation of the regression model was carried out using three approaches, namely: first, the common effect model integrating time series and cross section data. In addition, this model also does not consider time or individual dimensions, so it is assumed that the behavior of company data is consistent throughout the time period. This method can estimate panel data models using the Ordinary Least Square (OLS) approach or least squares technique. The second approach, the fixed effect model, which implies that individual differences may be caused by differences in intercepts, is known as the Least Square Dummy Variable (LSDV) method. The final approach, the random effect model, estimates panel data where the error variables may be related to each other. Apart from that, the random effect model has the advantage of eliminating heteroscedasticity which is known as model error.

### 3. Results and Discussion

**Table 1. Descriptive Statistics**

Variable	n	Mean	Maximum	Minimum	Std. Deviation
ESG	66	43.51780	81.10514	8.162385	18.93576
<i>Green Innovation:</i>					
<i>Green Product Innovation</i>	66	0.009507	0.420281	-0.594965	0.122634
<i>Green Process Innovation</i>	66	0.011761	0.291700	-0.270027	0.087582

Company Business Performance:					
Tobins Q	66	1.949166	12.34748	0.066661	1.966289
ROA	66	0.109223	0.743906	-0.120107	0.118519
Control variables:					
<i>Firm Size</i>	66	13.52183	14.09479	13.13661	0.237215
<i>Leverage</i>	66	0.36739552	0.886580	0.133061	0.173683167

Source: processed 2023

The ESG variable has an average value of 43.51780 and a standard deviation value of 18.93576, which illustrates that the average ESG value is higher than the standard deviation value. This means that the ESG values of the sample companies do not vary. The green innovation variable is measured by green product innovation. The average green product innovation of the sample companies is 0.009507 while the standard deviation value is 0.122634. These results show that the average value of green product innovation is lower than the standard deviation value, which means that the sample company's green product innovation variable varies. Meanwhile, green innovation, which is proxied by green process innovation, shows an average value of 0.011761 which is lower than the standard deviation value, namely 0.087582. This result means that the sample's green process innovation varies.

The company's business performance variable in this study is measured by two proxies, namely Tobin's Q and ROA. The company's business performance proxied by Tobin's Q has an average value of 1.949166, where this value is lower than the standard deviation value of 1.966289, which means that the company's business performance proxied by Tobin's Q varies. Meanwhile, the company's business performance as proxied by ROA has an average ROA value of 0.109223, which shows that this value is lower than the standard deviation value of 0.118519. This means that the company's business performance as proxied by ROA varies.

The control variables used are firm size and leverage. The firm size control variable has an average value of 13.52183 and a standard deviation value of 0.237215. The average firm size value is higher than the standard deviation value, which means that the firm size of the sample companies does not vary. Meanwhile, the leverage control variable shows an average value of 0.36739552 which is greater than the standard deviation value of leverage, namely 0.173683167. This means that the leverage of the sample companies does not vary.

**Table 2 Chow Test Results**

Proxy	Effects Test	Statistics	df	Prob.
Tobins Q	Cross-section F	10.961492	(10.50)	0.0000
	Chi-square cross-section	76.608917	10	0.0000
ROA	Cross-section F	7.047477	(10.50)	0.0000
	Chi-square cross-section	58.041545	10	0.0000

Source: Processed 2023

The results of the Chow test show that the (p) value is 0.0000 < 0.05 with a significance level of 5%, so it can be concluded that the fixed effect model is better to use than the common effect model. Next, the Hausman test was carried out, the results of which are presented in table 3. The Hausman test aims to select the best model between fixed effects or random effects. The basis for decision making uses the probability value (p) for the cross section F. If the p value is > 0.05 then the model chosen is random effect, but if  $p < 0.05$  then the model chosen is the fixed effect model.

**Table 3 Hausman Test Results**

Proxy	Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob
Tobins Q	Random cross-section	22.788541	5	0.0004
ROA	Random cross-section	16.549657	5	0.0111

Source: Processed 2023

The results of the Hausman test show that the probability value (p-value) of cross section F is  $0.0221 < 0.05$ . These results indicate that the fixed effect model is better used in hypothesis testing. Then hypothesis testing was carried out, the results of which are presented in table 4 below.

**Table 4 Test Results Hypothesis**

Variable	Prediction Direction	coefficient	t-statistic	Conclusion
<b>Tobin's Q Company Business Performance</b>				
Reg eq_1	+	35.48786 (0.1690)	1.3955	
ESG	+	-0.104542 (0.0000)***	-4.9829	No supported
GI Products	+	0.528591 (0.6608)	0.4414	No supported
GI Process	+	0.427834 (0.8034)	0.2502	No supported
<i>Firm size</i>	+	-1.990745 (0.2845)	-1.0818	
Leverage	+	-5.663688 (0.0540)**	-1.9731	
Adj. R2 =0.680517				
Prob (F statistic) = ***1%, **5%, *10%				
<b>ROA Company Business Performance</b>				
Reg eq_2	+	4.020676 (0.0177)**	1.3955	
ESG	+	-0.000956 (0.4831)	-4.9829	No supported
GI Products	+	0.236937 (0.0035)***	0.4414	Supported
GI Process	+	0.129751 (0.2447)	0.2502	No supported
<i>Firm size</i>	+	-0.274747 (0.0247)**	-1.0818	
Leverage	+	-0.431557 (0.0238)**	-1.9731	
Adj. R2 =0.634587				
Prob (F statistic) = 1%***, 5%** , 10%*				

Source: Processed 2023

### ESG and Company Business Performance

The results of testing H1 which states that ESG has a positive effect on company business performance as proxied by Tobin's Q is not supported because there is a difference in direction from what was hypothesized. The results of this study provide evidence of a negative direction different from that hypothesized. However, the results of this study are in line with Behl et al., (2022) which provides empirical evidence that ESG has a negative and significant effect on company business performance. Meanwhile, when the company's business performance is measured by ROA, the results are not supported because they are not significant. The insignificant results are expected because the sample companies have varying corporate business performance (ROA) while the ESG scores do not vary. These results are in line with the research results Sharma & Thukral, (2015) which provides empirical evidence that ESG and company business performance (ROA) have no effect.

Stakeholder theory suggests that companies' efforts to provide information for the benefit of stakeholders, including non-financial information such as ESG, causes companies to incur

significant costs. This statement is in line with Buallay (2019), Peng & Isa, (2020), And P. & Busru (2021) which states that disclosing non-financial information such as ESG is not the best decision because it is feared that the high costs incurred by companies will impact the company's profit maximization. In Indonesia, the number of companies that disclose ESG information is still limited. Meanwhile, Legitimacy theory suggests that companies align their actions in accordance with society's expectations, namely operating without damaging the environment. However, for stakeholders what is an important concern is the company's ability to improve stakeholder welfare. This shows that the main concern of stakeholders is the company's financial information.

### ***Green Product Innovation and Company Business Performance***

In this research, H2a which states that green product innovation has a positive effect on the company's business performance shows mixed results. For example, green product innovation has an effect when the company's business performance is measured by Tobin's Q, showing that H2a is not supported because it is not significant. These results are in line with the research results of Gallego-alvarez et al (2011) and Rizki & Roza (2022), they provide empirical evidence that green product innovation has no effect on the company's business performance because producing environmentally friendly products requires expensive costs. High costs cause not all companies to choose to produce environmentally friendly products because high production costs cause product selling prices to increase.

Legitimacy theory suggests that companies that disclose environmentally friendly product information are in line with the wishes of the local community that the company operates without damaging the environment. Meanwhile, Stakeholder theory suggests that disclosing information on green product innovation activities is an effort made by the company to meet the information needs of stakeholders. However, green product innovation for stakeholders is related to the large investment made by the company to implement environmentally friendly products so that it has an impact on the company's goal of providing welfare for stakeholders.

Meanwhile, the company's business performance as proxied by ROA results in H2a being supported. The results of this study are in line with Ar (2012), Chen & Chang (2013), Apriliani & Dewayanto (2018), and Roza & Maulana (2022). They found that green product innovation had a significant positive effect on the company's business performance. The underlying argument is that green product innovation is a company product that is useful and environmentally friendly. Environmentally friendly products make consumers interested in buying so that sales increase and have an impact on the company's business performance.

The results of this research are in line with Stakeholder theory which states that companies can utilize the disclosure of green product innovation information to help companies gain the trust of stakeholders. The implementation of green product innovation is considered by stakeholders to be able to improve the company's market performance and will be able to increase sales of the company's products. Utilizing environmentally friendly products will increase customer purchasing power so that the impact will increase company income. The increase in revenue is in line with the increase in the company's business performance.

Legitimacy Theory states that a successful company must be able to report its sustainability. Companies that care about the environment will try to use and produce environmentally friendly products. The use of environmentally friendly products has a positive impact on the company's sustainability (Chen & Chang, 2013). In this way, the company indirectly makes the public believe that implementing environmentally friendly products is the company's effort to reduce the impact of global warming.

### ***Green Process Innovation and Company Business Performance***

The results of H2b testing which states that green process innovation has a positive effect on the company's business performance are not supported. These results are in line with the results of research conducted by (Sari, 2020), (Roza Mulyadi & Maulana, 2022), and (Gallego-alvarez et al,



2011). They provide empirical evidence that there is no relationship between green process innovation and company business performance. These results show that environmentally friendly production methods are not able to support increased company business performance. The argument underlying these results is that implementing green process innovation requires significant investment which has an impact on high production prices which then causes product selling prices to also be high. Apart from that, there are no regulations that require companies to implement green process innovation in producing their products. On the other hand, implementing green process innovation causes companies to need funds to carry out more research and development because the recycling process requires special knowledge.

Stakeholder theory suggests that fulfilling information needs through non-financial information, in this case information about the process of producing products that are considered environmentally friendly, is not in line with stakeholders. This is because companies require large investments which of course have an impact on the welfare of stakeholders. While the Legitimacy Theory suggests that companies that report their social actions to appear to be in harmony with society's desires operate without damaging the environment. On the other hand, the expensive procedures required cause the price of the product to be high so that the product is less popular with consumers. These results are in line with research conducted by (Sari, 2020), (Roza Mulyadi & Maulana, 2022) And (Tonay & Murwaningsari, 2022) which provides evidence that green process innovation has no effect on the company's business performance.

### Additional Testing

This research also carried out additional tests by separating the ESG components. This separation aims to find out which ESG components have a significant impact on the company's business performance. The table below presents additional testing results.

**Table 5. Test Results**

Equation 1. Company Business Performance Variable (Tobin's Q)			
Variable	Prediction Direction	coefficient	Conclusion
Reg eq_3	+	38.75413 (0.1959)	
Environmental	+	0.039369 (0.0135)**	Supported
Social	+	0.034654 (0.1859)	Not supported
Governance	+	-0.003670 (0.7940)	Not supported
GI Products	+	0.701759 (0.6026)	Not supported
GI Process	+	0.090205 (0.9620)	Not supported
<i>Firm size</i>	+	-2.778813 (0.2154)	
Leverage	+	-6.930585 (0.0322)**	
Adj. R2 = 0.616236			
Prob (F statistic) = 1% ***, 5% **, 10% *			
Equation 2. Company Business Performance Variables (ROA)			
Variable	Prediction Direction	coefficient	Conclusion
Reg eq_4	+	3.545711 (0.0415)**	

Environmental	+	-0.000756 (0.3948)	Not supported
Social	+	-0.000192 (0.8975)	Not supported
Governance	+	0.001741 (0.0347)**	Supported
GI Products	+	0.246616 (0.0023)***	Supported
GI Process	+	0.135229 (0.2164)	Not supported
<i>Firm size</i>	+	-0.245075 (0.0592)**	
Leverage	+	-0.445044 (0.0170)*	
Adj. R2 = 0.653135			
Prob (F statistic) = 1%***, 5%**, 10%*			
Source: Processed 2023			

The results of additional testing of the company's business performance as proxied by Tobin's Q show that the ESG component, namely environmental, has a significant positive effect on the company's business performance as proxied by Tobin's Q. Meanwhile, social and governance are not supported. These results are in line with the results of research conducted by Saleh et al (2020) which provides empirical evidence that the environment has a positive effect on company business performance. The underlying argument is that disclosing environmental aspects by companies is a form of communication that the company is responsible for managing environmental impacts in line with stakeholder expectations. Thus, this disclosure will have an impact on increasing stakeholder support so that the continuity of company operations will maximize company value.

The test results when the company's business performance was proxied by ROA showed that only the governance variable had a significant positive effect on the company's business performance which was proxied by ROA. Meanwhile, environmental and social results are not supported. These results are also in line with research conducted by Velte (2017) which found that governance performance has a significant influence on company performance because companies that implement governance well will provide quality information to stakeholders. In addition, good corporate governance reduces company information asymmetry (Alareni & Hamdan, 2020).

#### 4. Conclusion

This research provides two empirical evidence, namely the first empirical evidence that the hypothesis which states that ESG has a positive and significant effect on company business performance as proxied by Tobin's Q and ROA is not supported. When financial performance is measured using Tobin's Q, the results are negative, although significant, but different from what was hypothesized. Meanwhile, when business performance is measured by ROA the results are not supported because they are not significant. The second empirical evidence is that the influence of the green innovation variable which is proxied by green product innovation on the company's business performance shows mixed results. For example, green product innovation has no effect on the company's business performance as proxied by Tobin's Q because the results are not significant. On the other hand, green product innovation has a significant positive effect on the company's business performance as proxied by ROA, which is supported because it is in accordance with what was hypothesized. Meanwhile, the second proxy for the green innovation variable, namely green process innovation, which has an effect on the company's business performance, is not supported when measured by Tobin's Q or ROA, the results are not significant.

The results of this research have several limitations, namely first, ESG issues have not yet become a concern for investors in Indonesia, as can be seen from the very small number of manufacturing companies that disclose ESG scores. Therefore, future research should consider looking at the influence of ESG on company business performance by expanding the sample of ESG implementation such as companies in the mining sector because it has a direct impact on the environment, social and governance. In addition, future research considers other measures such as analytical content to measure ESG. The second limitation is that the green innovation variable, which is proxied by green product innovation and green process innovation, shows various influences on the company's business performance. In order to gain a better understanding of this, future research should consider other proxies for measuring green innovation, for example the green innovation score as done by Damas et al (2021), using a measure of the number of green patents. The third limitation, this research uses company business performance variables which are proxied by market performance (Tobin's Q) and accounting performance (ROA). When the company's business performance is measured by Tobin's Q and ROA, it shows mixed results. Future research should consider other dependent variables such as company reputation. The fourth limitation, the research uses ESG and green innovation variables as independent variables. Future research should consider adding other variables such as diversity of board characteristics, audit quality, and company characteristics. Finally, the results of this research do not require more robust empirical validation related to heteroscedasticity and correlation issues related to panel data testing. Future research should consider feasible general least squares (FGL) to increase the robustness of the results.

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