

THE IMPACT OF GREEN INNOVATION ON CORPORATE PERFORMANCE WITH CORPORATE GOVERNANCE AS MODERATOR

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**THE IMPACT OF GREEN INNOVATION ON CORPORATE PERFORMANCE WITH
CORPORATE GOVERNANCE AS MODERATOR**

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ABSTRACT

Introduction/Main Objectives: This paper describes the impact of green innovation, both green process innovation and green product innovation, on corporate performance with corporate governance as moderator. The green innovation is very important to study considering the negative impact on the environment that can be caused by manufacturing companies in Indonesia. This paper aims to increase awareness and add information regarding the importance of protecting the environment through green process innovation and green product innovation. **Background Problems:** Production process in manufacturing companies cause negative effects on the environment. Many corporates still have not realized the importance of green innovation. Green Innovation classified into green process innovation and green product innovation. Those can help corporates in reducing environmental damage that is caused by corporates operational activities. Corporates that applied green innovation will reduce cost and avoid corporates from lawsuits. Corporates that have good corporate governance tend to manage corporate including doing green innovation which can increase corporate's financial performance. **Novelty:** This paper adds corporate governance variable as a moderator because it sees the relationship between companies that have good corporate governance will tend to manage the company well, including caring for the environment through green process innovation and green product innovation. The addition of corporate governance as a moderating variable is a novelty and contribution of this paper. **Research Methods:** This paper's research design is quantitative research that uses secondary data which is manufacture corporate annual report, that list in Indonesia stock exchange in year 2015-2019. Data analysis technique that is used is multiple linear regression analysis. The total of samples that used for green process innovation variable is 184 data and green product innovation variable is 182 data. **Finding/Results:** This paper shows that green process innovation and green product innovation positively affect corporate's financial performance. In addition, corporate governance has strengthened the effect of green process innovation and green product innovation to corporate's financial performance. **Conclusion:** This paper has been able to attest that corporate governance strengthens the positive impact of green innovation on the company's financial performance. A company with good corporate governance means that the company has good control. The company does not only focus on its interests, but also on the interests of stakeholders, including protecting the environment by carrying out green innovation which has a positive impact on improving the company's financial performance.

Keywords: corporate governance, green process innovation, green product innovation, corporate financial performance

JEL Classification: D13, I31, J22, K31

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ABSTRACT¹

Introduction/Main Objectives: Production process in manufacturing corporates cause negative effects on the environment. Many corporates still have not realized the importance of green innovation. Green Innovation classified into green process innovation and green product innovation. Those can help corporates in reducing environmental damage that is caused by corporates operational activities. Corporates that applied green innovation will reduce cost and avoid corporates from lawsuits. Corporates that have good corporate governance tend to manage corporate including doing green innovation increase corporate's financial performance. This research aims to empirically test, is green process innovation and green product innovation affect a corporate's financial performance with corporate governance as moderator. This research design is quantitative research that uses secondary data which is manufacture corporate annual report, that list in Indonesia stock exchange in year range of 2015-2019. Data analysis technique that is used is double regression analysis. The total of samples that used for green process innovation variable is 184 data, meanwhile the total of samples that used for green product innovation variable is 182 data. The result of this research showed that green process innovation and green product innovation positively affect corporate's financial performance. In addition, corporate governance has strengthened the effect of green process innovation and green product innovation to corporate's financial performance.

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¹ Note that an abstract must stand alone—it should not mention any citation(s). The abstract should also be relatively nontechnical, yet clear enough for an informed reader to understand the manuscript's contribution. This abstract should be written in less than 400 words.

INTRODUCTION

The Manufacturing corporate is processing material into valuable items. The process that is not running properly will have a negative effect on the environment such as pollution. This environmental pollution shows that the corporate is using hazardous and inefficient resources. Environment damage can have more negative impacts in the future, both for the next generation and for the survival of the corporate itself. The government made a decision to solve environmental problems by issuing regulations which were reflected in the Republic of Indonesia's Law no. 40 of 2007 art 74, which states that corporates that do business or use resources need to be responsible for the environment in their operations. The Ministry of Environment and Forestry admits that manufacturing corporates have low awareness of protecting the environment. PT Tjiwi Kimia is one of the manufacturing corporates reported to have polluted river in Surabaya (Toha, 2018). PT Tjiwi Kimia is an corporate that uses a lot of chemicals, so the waste from its industrial production process is very dangerous and causes pollution.

Toxic waste must be managed according to established standards. Corporates need to have a role in overcoming the problem, so it does not have a negative impact on the environment and does not get lawsuit. Corporates can apply green innovation to reduce the negative impact that the corporate made on the environment. In addition, environmentally friendly materials will make the products and waste of the product that is produced by the corporate safe for the environment. According to Kong, Fe, and Ye (2016), green innovation can significantly reduce the negative impact that is caused by corporates on the environment. Several manufacturing corporates have started to implement this green innovation as a strategy that is beneficial to the environment, both in the process and in the product that is made. Green innovation can be classified into two types, first one is green process innovation and second one is green product innovation (Chen, Lai, and Wen, 2006).

Green process innovation is an innovation carried out by the corporate in its operational process, so the production process is not harmful to the environment. The application of this green process innovation can reduce environmental pollution and toxic waste, because materials that are used by the corporate in the production process are environmentally friendly. Green product innovation is an innovation that is made by the corporate to make products produced more environmentally friendly (Lin, Tan, and Geng, 2013). Green product innovation produced by the corporate can be in the form of improving old products or creating new products. All technologies and innovations used in developing these new products are a positive contribution to the environment. The positive impacts are the reduction of carbon dioxide emissions, energy savings, saving water use, reducing the use of plastics, as well as reducing environmental pollution.

According to Zahari and Ramayah (2017), energy efficiency, the use of alternative fuels in the production process and the use of recycled materials in making products can provide profits for the corporate. This can reduce the cost of a product, so that the selling price will be cheaper than other similar products. People certainly want good quality products and low prices, so with the application of green innovation, corporate's profit will increase through high demand of sales.

Stakeholders certainly want the corporate's financial performance to increase continuously, but the corporate does not necessarily run effectively and efficiently. According to Adisetiawan and Surono (2016), corporate governance is implemented with the hope that the corporate can run effectively and efficiently. Corporate governance is a system that directs and controls the corporate, so that the corporate does not only pay attention to its interests, but also pays attention to the interests of the environment and society, including stakeholders. The application of green innovation is not only carried

out because of government regulations, but corporates that have good corporate-governance will tend to implement green innovation in a controlled and better way through the development of new innovations. Corporates that have good corporate governance will make the application of green innovation better, so it will strengthen its influence on financial performance.

Considering the negative impact on the environment that can be caused by a manufacturing corporate going public in Indonesia, the topic of green innovation is very important to be researched. This research aims to increase awareness and add information related to the importance of protecting the environment through green process innovation and green product innovation. This research wants to empirically examine the impact of green innovation, both green process innovation and green product innovation, on the corporate's financial performance.

This research will use go public corporates, especially manufacturing corporates. This manufacturing sector was chosen because manufacturing corporates have the potential to produce more waste that can trigger environmental damage. This research takes data from the corporate's annual report, but annual reports that are produced by the corporates may produce biased results due to impression management. Management certainly tries to make readers have a good impression of the corporate. Management has a freedom to create a narrative in the annual report in which the narrative section is not audited (Bagby, Kintzele, and Kintzele, 1988). Corporate governance plays a role in maintaining the quality and integrity of the annual report, so that the entire of annual report can be trusted and accounted for. This research will add corporate governance as a moderator variable and as a form of research contribution.

LITERATURE REVIEW

1. Green Innovation and Corporate Financial Performance

Green innovation is defined as the existence of novelty aimed at the environment (Zahari and Ramayah, 2017). Green innovation means all decisions made by stakeholders related to the promotion, development, and implementation of improvements, both processes, products, techniques, and management systems that contribute to the environment (Kemp and Arundel, 1998). Green innovation is carried out both on processes and products produced by the corporate. Green innovation by the corporate can reduce costs, both corporate's operational costs and product manufacturing costs. Reducing these costs can increase the profits that will be obtained by the corporate. This means that financial performance will increase. The effect of green innovation, which is classified into 2, namely green process innovation and green product innovation (Chen et al., 2006) on the corporate's financial performance can be described as follows:

1.1. Green Process Innovation and Corporate Financial Performance

Green process innovation is one form of green innovation that corporates can do to reduce environmental impacts. Green process innovation tends to be sourced internally and requires more costs for its implementation, but green process innovation has also been proven to increase effectiveness in a corporate's production process (Gopalakrishnan, Bierly, and Kessler, 1999).

Green process innovation can improve existing production processes within the corporate as well as add new processes to reduce adverse environmental impacts. This can improve the corporate's environmental compliance and provide benefits for the corporate because the corporate will avoid lawsuits (Cheng, Yang, and Sheu, 2014). An ineffective and inefficient process will make the corporate spend more costs, both costs in the production process and costs from the environmental impacts caused

by the production process. The process that runs effectively and efficiently will certainly reduce costs, so that corporate's profits will increase. An increase in profit means that the corporate's net profit will increase, so the corporate's financial performance also increases. This shows that corporates that carry out green process innovation in their production processes can improve their corporate's financial performance (Weng, Chen, and Chen, 2015; Xie, et al., 2019). The hypothesis that can be formulated from the description above is as follows:

Hypothesis 1a. Green process innovation has a positive effect on the corporate's financial performance.

1.2. Green Product Innovation and Corporate Financial Performance

Green product innovation is a form of green innovation that can be carried out by corporates by making changes, either improving or creating new products that are more environmentally friendly. Corporates can increase resource productivity through green product innovation and cover environmental costs, so that the corporate's financial performance increases (Chen, et al., 2006). The application of green product innovation can increase public awareness of the importance of protecting the environment by using green product innovation. The rapid development of information today makes more and more people start to care about the environment, so they prefer environmentally friendly products.

One of the ways corporates implement green product innovation is to use recycled materials to make products. This will certainly reduce costs because the materials used are cheaper. Corporates that innovate will increase public interest in buying their products (Chiou, Chan, Lettice, and Chung, 2011). Increased sales mean that the profit received by the corporate in a corporate also increases. Corporates that carry out green product innovation are also seen as better, both by users or consumers and other stakeholders. This shows that the application of green product innovation can improve a corporate's financial performance (Wei, and Morgan, 2004; Ar, 2012; Lin, et al., 2013). The hypothesis that can be formulated from the description above is as follows:

Hypothesis 1b. Green product innovation has a positive effect on the corporate's financial performance.

1.3. The Moderating Role of Corporate Governance

Corporate governance can be interpreted as a series of rules and regulations that regulate, control, and direct the organization (Mohan and Chandramohan, 2018). A well-functioning corporate governance can attract new investment and strengthen the foundation for a corporate's financial performance. The relationship between corporate governance and financial performance has important implications for policy makers who oversee corporate governance (Dalton and Dalton, 2005).

The expectation from the implementation of corporate governance is the corporate does not only pay attention to its interests, but also pays attention to the interests of stakeholders, including the environment. Corporate governance is also expected to reduce the possibility of impression management on disclosures related to the corporate's responsibility to the environment, so the information provided by the corporate is information that is actually carried out by the corporate. The effect of green innovation, which is classified into green process innovation and green product innovation, on the financial performance of corporates with corporate governance as moderating can be described as follows:

1.3.1. ² The Effect of Green Process Innovation on Corporate Financial Performance with Corporate Governance as Moderator

Waste and pollution generated from the corporate's production process can pollute the environment. The government has participated in providing regulations related to B3 waste management through Government Regulation 101 of 2014. The corporate will try to comply with these regulations to avoid lawsuits. Corporates can apply green process innovation to overcome and reduce the impact of the production process that pollutes the environment. Corporates that have good corporate governance indicate that the corporate has good control. The corporate will carry out green process innovation with full awareness and carry out other innovations that exceed the established standards. Disclosures made in the annual report will have more integrity in corporate with good corporate governance. Therefore, with that, corporates will be controlled and pay more attention to their environment, including conducting and disclosing green process innovation in a better and responsible manner.

Good corporate governance ⁵ will make green process innovation have a greater influence on the corporate's financial performance. Green process innovation can be seen from the corporate's annual report. Corporate governance will also overcome the possibility of impression management, so that the application of the corporate's green process innovation shown through the annual report can be more trusted. From this, it can be concluded that corporate governance moderates the effect of green process innovation on the corporate's financial performance. The hypotheses that can be formulated from the description above are:

Hypothesis 2a. Corporate governance moderates ² the effect of green process innovation on the corporate's financial performance.

1.3.2. The Effect of Green Product Innovation on Corporate Financial Performance with Corporate Governance as Moderator

The products produced by the corporate can also pollute the environment both from products and product packaging that cannot be recycled. The government also hopes that corporates can produce environmentally friendly products through Law no. 3 of 2014, which in the act one of the aims of the corporate to realize a green industry. Corporates that have good corporate governance will certainly try to pay attention to the products made, both product content and packaging used to participate in realizing the green industry through the application of green product innovation.

The corporate will not only carry out green product innovation according to government standards, but the corporate will also try to innovate better products and packaging for environmentally friendly products. Therefore, with good corporate governance, corporates will implement and disclose green product innovation voluntarily and better. Better green product innovation means that the corporate's financial performance has increased higher. The corporate's application of green product innovation can also be seen from the annual report presented by the corporate. The possibility of impression management makes this application doubtful by readers of the corporate's annual report. Good ⁷ corporate governance in the corporate can reduce the possibility of impression management, so that the application of green product innovation in the corporate's annual report is more integrity and responsible. From this it can be concluded that corporate governance can moderate the effect of green product innovation on the corporate's financial performance. The hypotheses that can be formulated from the description above are:

Hypotesis 2b. Corporate governance moderates the effect of green product innovation on the corporate's financial performance.

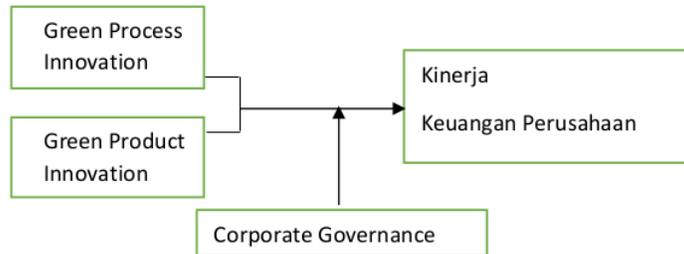


Figure. 1. Conceptual Model

METHOD, DATA, AND ANALYSIS

This research design uses a quantitative research design that uses secondary data. This research will conduct tests to empirically prove the effect of green innovation, namely green process innovation and green product innovation, on the financial performance of corporates with corporate governance as moderating. The period of this research is the last five years, namely 2015-2019.

1. Population and research sample

The population used in this research are all manufacturing corporates that have gone public or have been listed on the IDX for the 2015-2019 period. The total population is 965 data from 193 manufacturing corporates over five years. The sample selection technique used in this research is purposive sampling. Sampling criteria include:

1. Manufacturing corporates listed on the Indonesia Stock Exchange (IDX) during the 2015-2019 period.
2. Published its annual report for 2015-2019 in a row.
3. Having complete data required in research, which is having data related to green process innovation, green product innovation, and corporate governance.

Total sample that according to the criteria and is used for green process innovation is 184 samples, while for green product innovation is 182 samples. Total corporates that listed on the Indonesia Stock Exchange is 193 corporates, then 67 corporates did not publish their annual reports in a consecutive period of research, 86 corporates do not complete the criteria. Corporates that according to the criteria multiplied by 5 years of research period, then some samples are eliminated when the data outliers.

2. Variables

There are three types of variables used in this research, the independent variables are green innovation (green process innovation and green product innovation), the dependent variable (corporate financial performance), and the moderating variable (corporate governance).

2.1. Green Process Innovation

Green process innovation is an innovation made by the corporate in its production process that aims to reduce energy consumption during the process of converting raw goods or recycled materials

into valuable goods (Salvado, et al., 2012). Green process innovation uses an index for its measurement (Xie, et al., 2019). The index used to measure this variable includes:

1. Aims to reduce resource and energy consumption as well as improve resource and energy efficiency.
2. Using recycling techniques and environmental technology.
3. Implement an “environmental campaign”
4. Using pollution control equipment.

The calculation of the index value of the above criteria is as follows:

$$PROC = \frac{\text{total according the criteria}}{4}$$

PROC = Green Process Innovation

2.2. Green Product Innovation

Green product innovation is an innovation made by the corporate in producing products that are more environmentally friendly (Lin et al., 2013). This innovation aims to reduce the environmental impact that often occurs due to products that are not environmentally friendly. Green product innovation can be in the form of the use of environmentally friendly materials or the use of recycled materials that are used as new products or packaging for products. This research refers to the research of Ar (2012) in its measurement, which uses an index. Green product innovation measurement indexes include:

1. Using less or less polluting/toxic materials (using environmentally friendly materials).
2. Improve and design more environmentally friendly packaging for both existing and new products (eg reducing the use of paper and plastic materials).
3. Enterprise end-of-life product recovery and recycling.
4. Using eco-labeling.

The calculation of the index value of the above criteria is as follows:

$$PROD = \frac{\text{total according the criteria}}{4}$$

PROD = Green Product Innovation

2.3. Corporate's Financial Performance

Financial performance shows how much the corporate's ability to process its resources (IAI, 2007). Corporates that run effectively and efficiently can be shown through the profits generated by the corporate from the total assets owned. This research uses a profitability ratio, namely return on assets (ROA) as a measurement of financial performance, where ROA is used to measure the corporate's ability to generate profits from the use of assets or resources owned by the corporate (Attar and Shabri, 2014). The formula for the corporate's financial performance variable is:

$$CFP = \frac{\text{Net Income}}{\text{Total Assets}}$$

CFP = Corporate Financial Performance

2.4. Corporate Governance

Corporate governance is a process and structure owned by the corporate to increase the success of the business and the corporate's accountability in order to keep paying attention to the interests of its stakeholders (Sutedi, 2012:1). According to Ehikioya (2009), corporate governance plays an important

role in building corporates and can make corporates have competitiveness with other global corporates. Corporate governance is formed with the aim that corporates have better financial performance (Sulastri and Nurdiansyah, 2017).

There is no approach or measurement that is really suitable for achieving effective corporate governance (Bhagat and Bolton, 2008), but in Indonesia, the Forum for Corporate Governance in Indonesia or FCGI makes a measurement using a checklist to measure corporate governance. This research will use the measurement of "corporate governance self-assessment checklist" to measure corporate governance. The checklist created by FCGI has included aspects such as shareholder rights, corporate governance policies, corporate governance practices, disclosures, and audit functions (FCGI, 2001). This checklist measurement will then be multiplied according to the specified weight. The calculation is as follows:

TABLE 1. Corporate Governance Self-assessment Checklist Table

Summary Scores	Weightings	Company	Whole Surveys		(Relevant) Industry	
		Scores	Average	Top	Average	Top
Shareholders rights						
Corporate governance policy						
Corporate governance practices						
Disclosure						
Audit						

Source: FCGI (2001).

2.5. Analysis

This research uses multiple linear regression data analysis techniques (Gozhali, 2016). This research uses IBM SPSS 23 as a test tool, but for the heteroscedasticity and autocorrelation test, this research uses eviews 9 so that there is homoscedasticity and there is no autocorrelation. The regression equation models of this research are as follows:

$$CFP = \beta_0 + \beta_1 PROC + \varepsilon \dots\dots\dots(1a)$$

$$CFP = \beta_0 + \beta_1 PROD + \varepsilon \dots\dots\dots(1b)$$

$$CFP = \beta_0 + \beta_1 PROC + \beta_2 PROC * CG + \varepsilon \dots\dots(2a)$$

$$CFP = \beta_0 + \beta_1 PROD + \beta_2 PROD * CG + \varepsilon \dots\dots(2b)$$

Description:

CFP: Corporate Financial Performance

PROC: Green Process Innovation

PROD: Green Product Innovation

CG: Corporate Governance

$\beta_{1,2}$: regression coefficient

β_0 : Constant

e: Error

RESULT AND DISCUSSION

TABLE 2. GREEN PROCESS INNOVATION DESCRIPTION STATISTICS

Variable	N	Min	Max	Mean	Std. Dev
CFP	184	-0.113	0.191	0.037	0.051
PROC	184	0.250	1.000	0.484	0.180
CG	184	0.582	0.879	0.720	0.054

Source: Author's Calculation

TABLE 3. GREEN PROCESS INNOVATION DESCRIPTION STATISTICS

Variable	N	Min	Max	Mean	Std. Dev
CFP	182	-0.106	0.171	0.037	0.048
PROD	182	0.250	0.750	0.398	0.144
CG	182	0.582	0.879	0.720	0.054

Source: Author's Calculation

Table 4 shows the descriptive statistics for the green process innovation (PROC) variable and table 5 shows the descriptive statistics for the green product innovation (PROD) variable. The descriptive statistics above show the minimum, maximum, and standard deviation values for each variable.

TABLE 4. NORMALITY TEST RESULT

Description	Equations	Monte Carlo Sig. (2-tailed) Sig.
Unstandardized Residual	(1a)	0.413
	(1b)	0.363
	(2a)	0.506
	(2b)	0.632

Source: Author's Calculation

The result can be said normal if the significance level is > 0.05 . All equation above have a significance more than 0.05, so that means that the normality test for all equations is normally distributed.

TABLE 5. HETEROSCEDASTICITY TEST RESULT

Equation	Sig.	Result
(1a)	0.164	Homoscedastic
(1b)	0.797	Homoscedastic
(2a)	0.039	Heteroscedastic
(2b)	0.009	Heteroscedastic

Source: Author's Calculation

This test was conducted to determine whether the regression model has a difference in variance from the residuals between observations (Ghozali, 2016: 134). Heteroscedasticity test was carried out

by the glejser test. The significance value can be said to have heteroscedasticity if the value is < 0.05 , therefore the significance value must be 0.05 for homoscedasticity to occur.

The heteroscedasticity test in this research used IBM SPSS 23, but because the results for equation (2a) and (2b) were heteroscedastic and could not be treated using IBM SPSS 23, this research used Eviews 9 to treat it. The heteroscedasticity test results on Eviews 9 showed the same value as the heteroscedasticity test results on IBM SPSS 23.

Table 5 above shows that equation (1a) has a significance value of 0.163 and (1b) of 0.796 so that there is no heteroscedasticity or homoscedasticity. Equations (2a) and (2b) have a significance < 0.05 so that heteroscedasticity occurs. This research uses the Newey-West HAC to treat the heteroscedasticity problem. The value of HAC standard errors & covariance for equation (2a) and (2b) is 5.000 so that it passes the heteroscedasticity test.

TABLE 6. AUTOCORRELATION TEST RESULT (USING IBM SPSS 23)

Equations	DW
(1a)	1.433
(1b)	1.204
(2a)	1.440
(2b)	1.255

Source: Author's Calculation

TABLE 7. AUTOCORRELATION TEST RESULT (USING EIEWS 9)

Equations	DW
(1a)	0.166
(1b)	1.403
(2a)	1.440
(2b)	1.710

Source: Author's Calculation

This test was conducted to determine whether there is a correlation between the residual variables of period t and the previous period. The Durbin-Watson (DW) value must be between the values of DU and $4-DU$ so that there is no autocorrelation.

This research used IBM SPSS 23, but because the results were autocorrelated and could not be treated using IBM SPSS 23, this research used Eviews 9 to treat it. The results of the autocorrelation test on IBM SPSS 23 are different from the results of the autocorrelation test on Eviews 9. The results of the autocorrelation test on IBM SPSS 23 are shown in Table 6, while the results of the autocorrelation test on Eviews 9 are shown in Table 7. The results of the autocorrelation test using 2 statistical tools show that All equations have autocorrelation.

In Table 6, equation (1a) has a DW value of 1.433, while a DU value of 1.7697. This shows that the DW value for equation (1a) is smaller than the DU value, so it can be concluded that there is an autocorrelation. Equation (1b) has a DW value of 1.204, while a DU value of 1.7685. This shows that the value of DW is smaller than DU , so it can be concluded that there is an autocorrelation. Equation (2a) has a DW value of 1.440, while a DU value of 1.7807. This shows that the DW value for equation (2a) is smaller than DU , so it can be concluded that there is an autocorrelation. Equation (2b) has a DW

value of 1.255, while a DU value of 1.7797. This shows that the DW value for equation (2b) is smaller than DU, so it can be concluded that there is an autocorrelation.

In Table 7, equation (1a) has a DW value of 0.166, while a DU value of 1.7697. This shows that the DW value for equation (1a) is smaller than the DU value, so it can be concluded that there is an autocorrelation. Equation (1b) has a DW value of 1.403, while a DU value of 1.7685. This shows that the value of DW is smaller than DU, so it can be concluded that there is an autocorrelation. Equation (2a) has a DW value of 1.440, while a DU value of 1.7807. This shows that the DW value for equation (2a) is smaller than DU, so it can be concluded that there is an autocorrelation. Equation (2b) has a DW value of 1.710, while a DU value of 1.7797. This shows that the DW value for equation (2b) is smaller than DU, so it can be concluded that there is an autocorrelation. To overcome the autocorrelation, this research uses the Newey-West HAC method available in Eviews 9. The HAC standard errors & covariance values for all equations are 5,000 so that equations (1a), (1b), (2a), and (2b) passed the autocorrelation test.

TABLE 8. MODEL FEASIBILITY TEST RESULT

Equations	R-squared	Sig.
(1a)	0.460	0.000
(1b)	0.186	0.000
(2a)	0.495	0.000
(2b)	0.377	0.000

Source: Author's Calculation

Table 8 above shows that equation (1a) has an R2 value of 0.460 or 46% which means that the green process innovation (PROC) variable has an effect of 46% on the corporate's financial performance variable (KK), while the other 54% is explained by other variables not used in the research. Equation (1b) has an R2 value of 0.186 or 18.6%, which means that the green product innovation (PROD) variable has an effect of 18.6% on the KK variable, while the other 81.4% is explained by other variables not used in the research. Equation (2a) has an R2 value of 0.495 or 49.5% which means that the PROC and corporate governance (CG) variables as moderating influence 49.5% on KK while the other 50.5% is explained by other variables that are not used. in research. Equation (2b) has an R2 value of 0.377 or 37.7%, which means that the PROD and CG variables as moderators have an effect of 37.7%, while the other 62.3% are explained by other variables not used in the research.

Table 8 above shows that all equations have a significance value of 0.000 for the F test. This shows that all equations used in this research are feasible or fit.

TABLE 9, HYPOTHESIS TEST RESULT

Equation (1a)			
Variable	Coefficient	Sig.	Result
C (Constant)	-0.054	0.000	

PROC	0.190	0.000	H _{1a} accepted
Equation (1b)			
Variable	Coefficient	Sig.	Result
C (Constant)	-0.020	0.037	
PROD	0.144	0.000	H _{1b} accepted
Equation (2a)			
Variable	Coefficient	Sig.	Result
C (Constant)	-0.035	0.000	
PROC	-0.186	0.081	
INT	0.459	0.000	H _{2a} accepted
Equation (2b)			
Variable	Coefficient	Sig.	Result
C	0.012	0.216	
PROD	-0.762	0.000	
INT	1,134	0.000	H _{2b} accepted

Source: Author's Calculation

Equation (1a) has a constant value of -0.054, so that if the independent variable (PROC) has a value of 0, then the value of the corporate's financial performance (KK) is -0.054. The coefficient value for PROC is 0.190, so the PROC value will increase by 0.190 every time there is a change of 1 unit.

Equation (1b) has a constant value of -0.020, so if the independent variable (PROD) has a value of 0, then the KK value is -0.020. The coefficient value for PROD is 0.144, so the PROD value will increase by 0.144 every time there is a change of 1 unit.

Equation (2a) has a constant value of -0.035, so if the independent variable (PROC) and the interaction variable (PROC*CG) have a value of 0, then the KK value is -0.035. The coefficient value for PROC in equation (2a) is -0.186, so the PROC value will decrease by 0.186 every time there is a change of 1 unit and the interaction variable has a constant value. The coefficient value for the interaction variable (PROC*CG) is 0.459, so it can be said that the presence of a moderating variable (corporate governance) can increase the KK value by 0.459.

Equation (2b) has a constant value of 0.012, so if the independent variable (PROD) and the interaction variable (PROD*CG) have a value of 0, then the KK value is 0.012. The PROD coefficient value in equation (2b) is -0.762, so the PROD value will decrease by 0.762 every time there is a change of 1 unit and the interaction variable has a constant value. The coefficient value for the interaction variable (PROD*CG) is 1.134, so it can be said that the presence of a moderating variable can increase the KK value by 1.134.

Table 10 also shows that PROC and PROD have a positive effect on KK because they have a significance value of 0.05. In addition, corporate governance (CG) can moderate the influence of both

PROC and PROD on KK because it has a significance value of 0.05. From this it can be concluded that H1a, H1b, H2a, H2b are accepted.

CONCLUSION

Based on the data analysis and discussions ¹ that have been carried out, the conclusions that can be drawn include:

1. Green process innovation has a positive effect on the corporate's financial performance. Corporates that carry out green process innovation can reduce operational costs through increasing resource and energy efficiency and using recycling techniques, so the profits generated by the corporate increase and the value of the corporate's financial performance ratio also increases. ²
2. Green product innovation has a positive effect on the corporate's financial performance. Corporates that carry out green product innovation can reduce the cost of raw materials so that products can be sold at lower prices. In addition, environmentally friendly products are also an added value in the eyes of the community because many people are aware and care about the environment at this time. Corporates that carry out green product innovation have high competitiveness in the market, so if the corporate's sales increase, the corporate's profit increases and the value of the corporate's financial performance ratio also increases. ²
3. Corporate governance moderates the effect of green process innovation on the corporate's financial performance. A corporate with good corporate governance means that the corporate has good control. The corporate does not only focus on its interests, but also on the interests of stakeholders including protecting the environment by conducting green process innovation. Green process innovation that is carried out better due to the existence of corporate governance will also increase the corporate's financial performance. Corporate governance makes reports presented by corporates more trustworthy and accountable, including reports related to the implementation of green process innovation within the corporate. ²
4. Corporate governance moderates the effect of green product innovation on the corporate's financial performance. A corporate that has good corporate governance means that the corporate has good control. Corporates will realize the importance of making products, both innovations from improving old products or making new products and product packaging that are more environmentally friendly. Corporates will carry out green product innovation voluntarily and it is better if the corporate has control through good corporate governance. Better green product innovation will make the corporate's financial performance also increase because of this corporate governance. This of course will be reported in the corporate's annual report to be shown to its users. Corporate governance makes reporting more integrity and trustworthy.

IMPLICATION/LIMITATION AND SUGGESTIONS

The limitations of the research conducted can be described as follows:

1. This research draws data from the corporate's annual report where corporate disclosures related to green innovation can be exaggerated to make users have a good impression of the corporate.
2. This research uses a sample of 2015-2019 which successively reports their annual reports on the Indonesia Stock Exchange, but many corporates have only conducted IPOs after 2015. This causes

the number of samples to decrease considerably and the number of the sample in the end is less representative of manufacturing corporates going public.

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