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INSTITUTIONAL INVESTORS, CONSUMER SENTIMENT AND SUSTAINABILITY PERFORMANCE MODERATED BY GREEN INNOVATION

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Abstract: *This study aims to examine the effect between institutional ownership and consumer sentiment using CCI index on sustainability performance moderated by green innovation. The sustainability performance measured by ESG index, and the green innovation variable with two indicator such as green product and green process is a variable that has never been used before as a moderation variable. The sample of this study is companies listed on the LQ45 Index on the IDX from 2018 to 2021. The analysis method used is moderation regression analysis assisted by EViews in data processing. The results show institutional ownership has no influence on the company's sustainability performance. The consumer sentiment has a positive influence on the company's sustainability performance. Meanwhile, green innovation cannot be a variable that can strengthen or weaken the influence of institutional ownership and consumer sentiment on sustainability performance.*

INTRODUCTION

Sustainable performance is a commitment to corporate social responsibility for its environment with appropriate and professional procedures (Schaltegger and Wagner, 2006). This sustainability performance in the long term creates a green strategy that not only achieves profit but also the company should be able to go hand in hand with the social, cultural, and economic environment. To achieve optimal sustainability performance, companies are expected to identify activities that can create economic value and are more environmentally friendly (*eco-efficient*) (Chen and Delmas, 2012).

Adopting green practices is becoming important for companies. Limited resources, consumer desire, pressure from society and regulatory policies drive the need to strike a balance between corporate profit growth and environmental sustainability. Green innovation is a model in implementing the development of corporate sustainability towards its environment which includes energy saving, pollution prevention, and waste treatment (Chang, 2011). Green innovations are related to green products and green processes designed to reduce pollution emissions, waste treatment, and use sustainable resources (Chen et.,2006).

Lin, Tan and Geng (2013) say that green innovation, especially green product innovation, has a positive influence on company performance. Tang, Lerner, and Li (2017) also say that green product innovation and green processes have a positive influence on company performance. However, research by Dangelico and Pujari (2010) said that green

innovation not only affects financial performance but can also overcome performance related to the sustainability of the environment around the company. So, it can be said that green innovation can not only improve the company's financial performance but can also improve the company's sustainability performance.

Increasing the implementation of these green innovations, companies must be able to address the key drivers that support such activities. Several studies identifying these drivers of implementation say that environmental ethics, stakeholders' views on green products and market demand for green products are contributors to successful implementation (Chang, 2011; Lin et.,al., 2013: Weng et.,al,2015). In research Kassar and Singh (2018) said that the company's main competitors are indicators of stakeholders' views on green innovation. In addition, the impact of the product on the environment and the impact of the company's operations on the environment that are of concern to consumers are also indicators in measuring stakeholders' views on green innovation. Furthermore, Kassar and Singh's (2018) research has proven that stakeholders' views on green innovation can improve company performance.

Xie and Zou (2019) have different research results from previous studies, which say that green product innovation can be a factor that can moderate the influence between green process innovation on a company's financial performance (Tseng et al, 2013; Caracuel, 2013; Huang et al, 2015). Green process innovation facilitates the implementation of green product innovations that ultimately bring revenue to the company. From some of the studies above, there is an empirical gap, where the results of the research produced are still inconclusive. Green innovation is still a factor that can be further tested. Green innovation consisting of green product innovation and green process innovation is proven to be a direct or indirect influence on organizational performance.

The study attempts to look at the role of institutional investors and consumer sentiment towards corporate sustainability performance moderated by green innovation. The renewal of this research is to use the views of *stockholders* and sentiments from *stakeholders* towards the implementation of green innovations consisting of technology adoption, green process innovation and green product innovation. The motivation of this research is to contribute to the development of research in terms of green innovation seen from two different points of view, both of which are the most important factors for the company.

Several studies use measures of sustainability performance using the GRI index, in this study the *Environmental Social Government Index* will be used which measures company activities related to the ecological, social environment and internal control systems of the company. Measurements for consumer sentiment will be used by the *consumer confidence index* issued by Bank Indonesia.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Signal theory was first introduced by Michael Spence (1973) in his research entitled *job market signaling.* Where this theory involves two parties, namely the management who plays the role of the party who gives the signal and outside parties such as investors who act as the party who receives the signal. Spence said that by providing signals, the management is trying to provide relevant information to investors who will adjust their decisions to their understanding of the signals.

Ross (1977) explained that company executives who have better information about the company will be encouraged to convey this information to investors. Where the information can be in the form of annual financial statements that contain information on the state of the company, records of the past and current state of the company and reflect the performance of a company. Spence (1973) says that a good company can distinguish itself from a bad company by giving credible signals about the quality of its company to the capital market. A credible signal is only if the bad company cannot afford to emulate a good company in giving the same signal. If the cost of the signal is higher for a bad type of company than a good type of company, then a bad type of company is not worth emulating and it could be that the signal is credible. Ross (1977) shows how debt can be used as an expensive signal to separate which companies are good and bad. The existence of asymmetric information between management and investors, resulting in signals from the company is very important to convince investors to get new financial resources. Ross assumes that managers know the actual distribution of the company while investors do not.

According to (Freeman 1984:46) defines *stakeholders* within the company that "*any group or individual who can affect or is affected by the achievement of the organization's objectives".* This means that *stakeholders* are as a group or individuals who can influence and / or be influenced by the achievement of company goals. The company can grow and develop well then become large requires support from *stakeholders.* Stakeholders *need* various information related to the company's activities used in decision making. Therefore, the company will try to provide various information it has to attract and seek support from *stakeholders* including non-financial information owned by the company.

Disclosure of *corporate social responsibility* can be a company's strategy to meet the interests of *stakeholders* in the company's non-financial information related to social and environmental impacts arising from the company's activities (Lako, 2011). The better and wider the disclosure of *corporate social responsibility* carried out by the company will make *stakeholders* provide support to the company for all its activities aimed at improving the company's performance and financial performance and can achieve the expected profit. So, if the financial performance is getting better, the creditor will provide attractive loan requirements to the company to carry out the company's operational activities, and investors are also interested in investing in the company so that it can improve the company's performance and company value in the eyes of *stakeholders* which is

indicated by the increasing demand for corporate securities and can lower the risk of the company (Botosan, 1997). The lower the company's risk, the *lower the cost of capital*. The company's capital costs here are the cost of equity and *the cost of debt*. Where the lower the company's risk, the rate of return charged by creditors will be low and the rate of return expected by investors will be low, which will have an impact on decreasing the company's *cost of debt* and *cost of equity*.

Green innovation consisting of product innovation, process innovation and technology adoption can become a moderation variable that moderates management's commitment to organizational sustainability performance (Kassar et al., 2018). In addition, the theoretical literature on sentiment, namely the theory of signals and emotions, says that the more investor sentiment towards the market that can result from green innovation activities can affect the company's sustainability performance. Institutional investors will influence the success of sustainability performance, and

green innovation will increase the influence of institutional ownership on the company's sustainability performance.

H1: Institutional investors influence the company's sustainability performance

H2: Institutional investors influence the company's sustainability performance by being moderated by green innovation.

Pressure from stakeholders such as researchers, managers, policymakers can encourage green innovation (Guoyou et al.,2013). Consumers are one of the stakeholders who can affect the company's performance, especially the company's sustainability performance. Green innovations carried out by the company are thought to increase consumer sentiment towards the company's sustainability performance.

H3: Consumer sentiment affects the company's sustainability performance

H4: Consumer sentiment affects the company's sustainability performance by being moderated by green innovation.

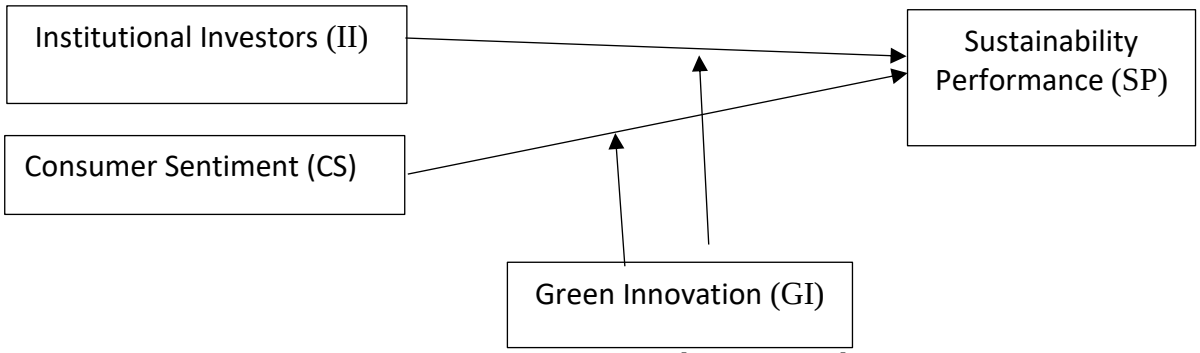

Figure 1. Conceptual Framework

RESEARCH METHOD

This research is explanatory research, that is, research that explains existing phenomena and tries to describe the consequences of the actions carried out. This study tries to explain the impact of intention on actions and how the consequences of actions performed.

This study discusses two variables, namely free variables, and bound variables. A free variable is a variable that affects or that is the cause of its change or the emergence of a bound variable. The dependent variable in this study is sustainability performance which is measured using an ESG index consisting of 78 indicators.

ESG Index = Number of disclosures/Indicators x 100%

The independent variables in this study consist of: Institutional Investors, as measured by the number of institutional holdings/ number of shares outstanding x100%. The second independent variable is consumer sentiment, which is corroborated with the CCI Index. While the moderation variable is green innovation as measured by the percentage of green innovation disclosures.

The object of this study is the companies listed in the LQ45 Index on the IDX from 2019 to 2021. This study used secondary data from financial companies listed on the Indonesia Stock Exchange from 2019 to 2021. Hypothesis testing includes descriptive statistics, research model tests, classical assumption tests and multiple linear regression tests with moderation variables.

RESULT AND DISCUSSION

The results of research and testing should be displayed in the form of pictures or tables. The format of table is as follows:

Table 1. Descriptive Statistics

	SP	II	CS	GI
Mean	0,273700	0,348277	0,418027	0,081454
Median	0,235000	0,500300	0,365152	0,000000
Maximum	0,920000	0,946400	1,000000	0,750000
Minimum	0,000000	0,000000	0,000000	-0,028639
Std, Dev,	0,213762	0,311501	0,242608	0,207615
Jarque-Bera	8,940056	12,29700	5,271570	193,3329
Probability	0,011447	0,002137	0,071663	0,000000

Test Model:

Table 2. Chow Test

Efects Test	Statistic	d.f.	Prob.
Cross-section F	3,323051	(24,70)	0,0000
Cross-section Chi-square	76,049346	24	0,0000

The results of the chow test above are known that the probability value is below 0.05, which means that the model selected in this test is a *fixed effect model.*

Table 3. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9,046534	5	0,1072

The test results above are known that the probability value of *chi square* is above 0.05. That is, the model selected for this test is a *random effect* model.

Table 4. LM Test

	Cross-section	Time	Both
Breusch-Pagan	12,83265	37,55999	50,39264
	(0,0003)	(0,0000)	(0,0000)

The test results above are known that the probability value of the *pagan Breusch* is below 0.05. That is, the model selected for this Lagrange multiplier test is a *random effect model.* Based on the three test models above, the random effect model was selected in the Hausman and Lagrange multiplier tests. For subsequent regression testing, *a random effect* model will be used. The next test is the classic assumption test. For this classical assumption test, a multicollinearity test will be carried out only, because the selected one is a *random effect* model that is assumed to be free from the assumptions of heteroskedasticity and autocorrelation

Test Classical Assumptions for Random Effect Models

Multicollinearity Testing

Table 5. Multicollinearity test

	GI	II	SK	II*GI	CS*GI
GI	1,000000	0,320457	-0,096902	0,981366	0,913394
II	0320457	1,000000	-0,104273	0,335888	0,305326
CS	-0,096902	-0,104273	1,000000	-0,104031	0,002864
II*GI	0,981366	0,335888	-0,104031	1,000000	0,869303
CS*GI	0,913394	0,305326	0,002864	0,869303	1,000000

The results of the multicollinearity test in the equation above show that the statistical model has been free of multicollinearity assumptions because the correlation value is below 1 or 0.98.

Hypothesis Test

Table 6. Test F

F Statistik	3,169802
Probabilitas	0,010907

Table 7. t-test

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
IH	-0,358555	0,678512	-0,528443	0,5984
KI	-0,073321	0,081841	-0,895894	0,3726
SK	0,289760	0,079585	3,640909	0,0004
KI*IH	0,817830	0,817581	1,000304	0,3197
SK*IH	-0,376388	0,710865	-0,529479	0,5977
C	0,178331	0,053759	3,317226	0,0013

The table above shows that institutional ownership variables (IP) cannot directly affect sustainability performance (probability above 0.05). So the H1 hypothesis is rejected. Meanwhile, consumer sentiment has proven to have a positive influence on sustainability performance with a probability value below 0.05. So the H2 hypothesis is accepted.

The moderation variable is that green innovation cannot moderate the influence of institutional ownership on sustainable performance nor can it moderate consumer sentiment towards sustainability performance. So the H3 and H4 hypotheses are rejected

DISCUSSION

This research proves that institutional ownership cannot affect the ups and downs of sustainability performance proxied by ESG indices. These results confirm that institutional ownership in Indonesia does not have a strong influence in influencing policies related to the company's ESG.

Consumer sentiment as measured by CCI which states that consumer sentiment towards company activities can affect sustainable performance is proven to affect sustainable performance. The higher investor sentiment towards the company related to social environment and governance activities, can improve the company's sustainable performance.

Green innovation is proven to be unable to directly affect sustainable performance. So,

the results of this study refute the research of Huang et al., (2015) which states that green innovation can affect the sustainability performance of companies. In addition, green innovation has not been shown to moderate the influence of institutional ownership and consumer sentiment on a company's sustainability performance.

Furthermore, this study provides different results from previous studies on sustainability performance. Institutional ownership as a representative of investors and consumer sentiment cannot afford to influence sustainability performance.

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Berisi deskripsi tentang kesimpulan hasil pengabdian masyarakat dalam bentuk refleksi teoritis dan rekomendasi. (Cambria, size 12, Spacing: before0 pt; after 0 pt, Line spacing: 1)

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