THE INFLUENCE OF GREEN INTELLECTUAL CAPITAL, GREEN INNOVATION AND ECO EFFICIENCY ON SUSTAINABLE PERFORMANCE

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Abstract

This research aims to examine the influence of green intellectual capital, green innovation and eco- efficiency on sustainability performance. This research is classified as associative quantitative research. The type of data used is secondary data obtained from www.idx.co.id and the company website. The population in this research is the Sri- Kehati Company which is registered on the IDX for the 2019 - 2023 period. The sample for this research was determined using a purposive sampling method so that 20 samples companies were obtained. The analytical method used is Panel Data Model Regression analysis. The results of this research shows that green intellectual capital, green innovation and eco- efficiency have an effect on sustainability performance, green intellectual capital has an effect on sustainability performance, green innovation has no effect on sustainability performance and eco efficiency has no effect on sustainability performance.

Keywords: Green Intellectual Capital, Green Innovation, Eco Efficiency, Sustainability Performance

1. Introduction

In the 21st century, we see and feel the rapid environmental damage that occurs. This environmental problem can become a serious threat to humans (Leonidou et al., 2017). This phenomenon has raised serious attention from various groups, because environmental damage can be a threat to human life. Various factors contribute to this environmental damage, including water and air pollution, widespread forest fires, and increasingly erratic climate change. All this has a serious impact on the ecosystem and sustainability of our planet. Apart from these factors, the rapid increase in population also exacerbates environmental problems. This means that limited natural resources will be increasingly squeezed and pressure on the environment will increase. With so many humans needing food, clean water, and shelter, environmental protection has never been more urgent.

Likewise, climate change which continues to take place globally has had very serious consequences, and its impact is not only limited to the natural environment, but also has a direct and indirect impact on the socio-economic conditions of society. The adverse effects of climate change are enormous and increasingly severe, increasing the amount of greenhouse gases in the air (Alvi & Khayyam, 2020). The adverse impacts of climate change include rising global temperatures, extreme weather, rising sea levels, and changes in rainfall patterns, all of which contribute to the instability of Earth's ecosystems. Increasingly severe climate change is also influenced by various industrial activities throughout the world, including the logistics and transportation industry.

Logistics is a major contributor to greenhouse gas emissions and is also one of the largest energy- using industries (El Baz et.al., 2017). This logistics industry contributes

24% to CO2 emissions in European logistics, estimated to produce 1.7 million tons of CO2 per year (El Baz & Laguir, 2017). More than 70% of logistics activities are transportation, so transportation contributes the most to carbon dioxide emissions compared to other logistics activities (Zaroni, 2017). The impact of the logistics industry on climate change becomes even clearer if we look at global data. Indonesia, as a country with significant logistics activities, has been listed as one of the top ten countries producing the most greenhouse gas emissions in the atmosphere.

To overcome increasingly worsening environmental problems, joint efforts from the entire global community are needed. This certainly helps organizations in developing strategies to achieve profits and markets through reducing environmental risks and increasing their environmental efficiency (Mishra et al., 2017). This includes steps to reduce pollution, protect forests and natural ecosystems, and reduce greenhouse gas emissions that cause climate change. Environmental and sustainability issues are the most important things in competitive advantage (Zolo et al., 2013).

According to the regional policy of the European Union (EU), sustainability is related to the capacity of regional economies to innovate, transform, increase competitiveness, and adapt to an ever-changing business environment (Ra đ enovi ć & Krsti ć, 2020), business sustainability is not just about seeking financial gain in the short term, but also about creating a business model that considers economic, social and environmental factors in the long term. This is closely related to the role of human intellectuals' capital. Has the potential to create breakthroughs and innovations that support company sustainability. By utilizing intellectual capital effectively, companies can generate and maintain the competitive advantage necessary in an ever-changing business. Intellectual capital is the main determinant of business performance which, if it works optimally, will have a positive impact on organizational growth (Krsti ć, 2014).

In performance concept sustainability, companies must adopt innovation to create environmentally friendly products and include environmental conservation as an integral part of each of their production activities. This requires a high level of awareness to overcome environmental challenges by implementing " green " concepts that have a significant impact on life. There is a strategic step that can be used to produce green products that can help improve sustainable business performance, namely green innovation (Teece, 2016). Long-term oriented companies must pay special attention to waste management and pollution control during their operations. They must be responsible for mitigating and minimizing environmental impacts, in accordance with the "triple" approach bottom line "which includes aspects of profit (profit), support for the community (people), and environmental (planet) preservation. The environment is increasingly sensitive, companies can consider green innovation (green innovation) as a solution, namely a strategy that actively reduces the environmental impact of business activities.

Many companies have adopted an eco-efficiency approach in their business operations. Eco-efficiency is a strategic orientation in environmental competition which aims to reduce costs by increasing the efficiency of the production process, while reducing waste, energy consumption and conserving the use of natural resources. Eco-efficiency is an orientation that aims to reduce costs by improving business production processes by reducing waste, energy consumption, saving the use of natural resources and implementing government regulations that lead to ecological business (Laari et al., 2016).

Apart from eco -efficiency, the concept of sustainable business has also become a focus for many companies. Sustainability refers to businesses incorporating environmental considerations and social conditions into all aspects of their activities and production processes. Apart from seeking profits, companies that implement sustainable business are committed to participating in improving community welfare and contributing to environmental conservation efforts. This sustainability business provides a concept to companies, namely that apart from pursuing profits, companies must also be involved in the welfare of society and contribute to environmental conservation efforts (Colicchia et al. , 2016), emphasizes that companies must operate with a balance of social and environmental responsibility, so that their businesses can have a broader positive impact on society and our planet.

The three concepts are interrelated, namely green intellectual capital, green Innovation and eco efficiency have an important role in improving a company's sustainability performance. Green intellectual capital provides a foundation for companies to produce innovative, environmentally friendly ideas. This, in turn, allows companies to implement green innovation strategies, which result in more sustainable products and technologies, reducing environmental impacts, and lowering production costs. Eco efficiency ensures that companies manage their resources more efficiently, reduce waste, and save energy. The three work together to create a more sustainable operational environment and promote corporate social responsibility.

So, from green integration intellectual capital, green innovation, and eco efficiency are improving the company's sustainability performance. Companies that adopt this approach are able to achieve their environmental and social goals while maintaining profitability and competitiveness. It also allows companies to play a greater role in maintaining a balance between profits, social good and environmental sustainability, which are important pillars of sustainable business. In conclusion, integration of green concepts intellectual capital, green innovation, and eco efficiency are important steps towards a more sustainable and responsible business.

2. Theoretical Background
2.1 Stakeholder Theory

This theory discusses management's responsibility towards stakeholders, equipping management to act better in order to realize the main goals of the company (Freeman et al, 2004). In determining how management must consider the interests of the various parties involved in company operations. Stakeholder theory also recognizes the importance of relationships with stakeholders in managing their expectations in the long term with the aim of maximizing company wealth (Donaldson & Preston, 1995) in Yusliza et al. (2020). Therefore, the company not only carries out its operations for internal purposes, but also aims to meet the expectations and needs of its stakeholders. In order to achieve this, companies are expected to transparently disclose information related to their environmental, social and economic performance. This disclosure is an important means of meeting stakeholder expectations regarding corporate social responsibility. Through disclosing this information, the aim is to provide managers with a better understanding of the dynamics of the stakeholder environment, so that they can carry out relationship management effectively within the company context.

2.2 Resources Based Theory

Based Theory, which was first presented by Wernerfelt (1984), is an important framework in the context of business strategy that highlights the role of company resources as a determining factor in creating long-term competitive advantage. The resources owned by a company can include various assets, such as technology, brands, expertise, and intellectual capital. This theory provides direction for companies to manage and utilize these resources well, in the hope of creating added value that contributes to their competitive advantage. This is the integration of environmental concepts into intellectual property to fulfill previous deficiencies regarding environmental issues. Green Intellectual Capital refers to the specifications, empowerment, and supporting infrastructure to develop sustainability or environmental protection strategies (Huang & Kung, 2011). Resource- Based Theory emphasizes the key role of unique and valuable internal resources in creating a company's competitive advantage. In the context of sustainable innovation, resources such as green technology, knowledge of sustainable practices, and expertise in environmental impact reduction become important elements in achieving competitive advantage. Green Innovation is a strategy to achieve a company's strategic goals by using new or modified methods, systems, practices and production processes to reduce negative impacts on the environment (Dewi & Rahmianingsih, 2020). Eco- efficiency and Resource- Based theory have a close relationship in the context of sustainable strategy and company resource management. Eco- efficiency is a concept that reflects a company's efforts to achieve efficiency in the use of natural resources and energy, while reducing environmental impacts. Thus, Resource- Based Theory supports companies in achieving sustainability by utilizing green intellectual capital, green innovation and eco- efficiency oriented towards sustainability.

2.3 Performance Continuity

Sustainability performance is an important aspect in evaluating and managing business in the modern era which is increasingly aware of environmental and social issues. Sustainability is understood as the result of corporate sustainability management as a process of continuous improvement of the company's economic, environmental and social performance (Staniskis et al. 2009; Holiawati, 2020). The concept of sustainability in business has deep implications for the way companies carry out their activities. Sustainability is closely related to long-term thinking, where companies must consider the impact of their actions on future resources. The dependent variable measurement of sustainability performance according to Waraihan (2020) is measured based on each item disclosed by the company which will be given a score of 1 and vice versa if it is disclosed by the company, it will be given a score of 0. Content and mandatory indicators of sustainability report based on GRI Standards 2016.

$$KK = \frac{\text{Number of items disclosed by the company}}{\text{Number of items contained in the 2016 GRI Standards}}$$

2.4 Green Intellectual Capital

Intellectual capital is defined as the total amount of knowledge, information, technology, intellectual property rights, team communication systems, customer relationships, and trademarks that are able to create value for the company (Bakhsha et al. 2018). In this context, green intellectual capital emerged as a particularly relevant concept, emphasizing intangible assets related to environmental protection and green

innovation. Green intellectual capital includes knowledge, capabilities, and relationships related to sustainable practices, enabling companies to comply with stringent environmental regulations, respond to consumers' increasing environmental awareness, and create sustainable value. Measurement of green independent variables intellectual capital according to Yusliza et al. (2020) is measured based on each item disclosed by the company which will be given a score of 1 and vice versa if it is disclosed by the company, it will be given a score of 0.

$$GIC = \frac{\text{Number of items disclosed by the company}}{\text{Number of items contained in the GIC Index}}$$

2.5 Green Innovation

Green innovation, or green Innovation, is a strategic approach that aims to promote sustainable development in business activities by paying attention to customer needs and competitors' actions. According to (El- Kassar & Singh, 2019), the very rapid increase in pollution with the decline in natural resources has encouraged governments, communities and companies to encourage Green Innovation on a large scale. Green products Innovation, or green product innovation, is a process in which companies design, develop and introduce new products or significant changes to existing products with a focus on aspects of sustainability and lower environmental impact. Measurement of independent variables green Innovation Score 1 = if the company has introduced or developed new products that increase energy savings, better pollution prevention, more waste recycling, or reduced use of raw materials. Value 0 = if the company does not carry out green innovation (Roper & Tapinos, 2016).

$$GI = \frac{\text{Number of Indicators disclosed}}{\text{Total Indicators (4)}}$$

2.6 Eco -Efficiency

Eco- efficiency is a concept that highlights a company's responsibility towards the environment and surrounding communities. One important aspect of this responsibility is ensuring that the production process carried out by the company does not have an excessive negative impact on the surrounding environment. " Ecoefficiency" is an abbreviation for "ecological-economic efficiency," a construct that denotes increased productivity while simultaneously reducing burdens with improved environmental performance according to Figge and Hahn (2004), as the increase in economic value generated by companies from the products and services, they offer in relation to waste produced. The company uses the eco- efficiency concept when the company has an ISO-14001 certificate regarding environmental management (Amalia & Rosdiana, 2016. So, if the company has ISO-14001 it is given a score of 1 and does not have ISO-14001 it is given a score of 0.

2.7 Hypothesis Formulation

The variables that will be tested in this research will be developed in a conceptual way framework which can be described as follows:
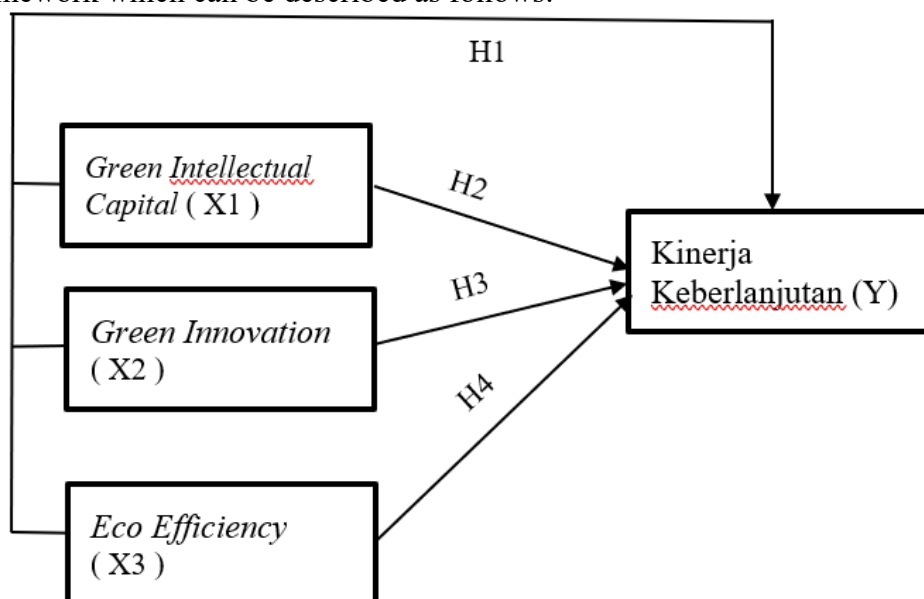
Figure 1. Conceptual Framework

H1: Green Intellectual Capital, Green Innovation and Eco Efficiency have an influence Towards Sustainability Performance.

H2: Green Intellectual Capital has an effect on Sustainability Performance.

H3: Green Innovation has an effect on Sustainability Performance.

H4: Eco Efficiency has an effect on Sustainability Performance.

3. Method

The population in this research is the Sri- Kehati company which is listed on the Indonesia Stock Exchange, using purposive sampling selected companies that meet the following criteria:

1) Sri Kehati Company in 2019-2023 which is listed on the Indonesia Stock Exchange (BEI).

2) Sri Kehati Company which publishes annual sustainability reports consistently and completely from 2019-2023.

The results of determining the criteria for the Sri- Kehati company sample were 25 companies listed on the IDX from 2019 to 2023. Using purposive sampling technique, there were 20 companies that had met the criteria for 5 years, resulting in 100 samples that could be used in research.

Descriptive statistical analysis shows all the variables used in the multiple linear regression analysis model, namely the Sustainability Performance variable as the dependent variable, Green intellectual capital, Green Innovation, and Eco Efficiency as independent variables. The regression model used is as follows:

$$KK_{it} = \beta_0 + \beta_1 GIC_{it} + \beta_2 GI_{it} + \beta_3 EE_{it} + t e_{it}$$

Information:

KK   : Performance Continuity

α   : Constant

β_1- β_3 : Regression Coefficient

GIC   : Green Intellectual Capital

GI   : Green Innovation
EE   : Eco Efficiency
ε   : error term

4. Results and Discussion
4.1 Descriptive Statistics

According to Ghozali (2016:19), what is meant by descriptive statistics is statistics used to analyze data by providing an overview or description of data seen from the average, maximum, minimum and standard deviation values.

Table 1. Descriptive Statistics

	K.K	GIC	G.I	EE
Mean	0.574300	0.908900	0.990000	0.640000
Median	0.550000	0.930000	1,000000	1,000000
Maximum	0.920000	1,000000	1,000000	1,000000
Minimum	0.250000	0.700000	0.750000	0.000000
Std. Dev.	0.145319	0.078533	0.049237	0.482418
Skewness	0.418784	-1.021789	-4.694855	-0.583333
Kurtosis	2.485311	3.619038	23.04167	1.340278

Source: Data processed by researchers with E- Views 10 .0, 2024

From the results of descriptive statistics, the analysis is as follows:

1) sustainability performance variable observed during the research period can be seen from the output results, that the sustainability performance value has the lowest value of 0.250000 which occurred at PT. Kalbe Farma Tbk in 2019, while the highest value was 0.920000 obtained by PT. Bank Negara Indonesia Tbk in 2023. The average value is 0.574300 with a standard deviation value of 0.145319. The results of the descriptive analysis show a mean value that is greater than the standard deviation value, meaning this shows that the sustainability performance variable has relatively small variations from the average. This suggests that the data tend to have high values overall and have significant variation around the mean.

2) Green Intellectual Capital variable observed during the research period can be seen from the output results , that the Green Intellectual Capital value has the lowest value of 0.700000 which occurred at PT. Bank BTPN Syariah Tbk in the 2019-2023 period, while the highest value was 1,000,000 obtained by PT Astra International Tbk in the 2019-2023 period, PT. Indocement Tunggal Prakarsa Tbk in the 2021-2023 period, PT. Jasa Marga (Persero) Tbk in the 2019 – 2013 period, PT. Kalbe Farma Tbk in 2022, PT. United Tractors Tbk in the 2019-2023 period and PT. Unilever Indonesia Tbk in the 2022-2023 period. The average value (mean) is 0.908900 with a standard deviation value of 0.078533. The results of the descriptive analysis show a mean value that is greater than the standard deviation value, meaning this shows that the Green Intellectual Capital variable has relatively small variations from the average. This suggests that the data tend to have high values overall and have significant variation around the mean.

3) Green Innovation variable observed during the research period can be seen from the output results, that the Green Innovation value has the lowest value of 0.750000 which occurred at PT. Bank Negara Indonesia Tbk in 2019 and PT. Bank BTPN Syariah Tbk in the 2019-2022 period, while the highest value was 1,000,000 which was obtained by almost all research samples except PT. Bank Negara Indonesia Tbk in 2019 and PT. Bank BTPN Syariah Tbk in the 2019-2022 period. The average

value (mean) is 0.990000 with a standard deviation value of 0.049237. The results of the descriptive analysis show a mean value that is greater than the standard deviation value, meaning this shows that the Green Innovation variable has relatively small variations from the average. This suggests that the data tend to have high values overall and have significant variation around the mean.

4) Eco Efficiency variable observed during the research period can be seen from the output results , that the Eco Efficiency value has the lowest value of 0.000000 which occurred at PT. Astra Agro Lestari Tbk, Bank Central Asia Tbk, PT. Bank Negara Indonesia Tbk, Bank Rakyat Indonesia Persero Tbk, PT. Bank Mandiri Tbk, PT. Bank BTPN Syariah Tbk, and PT Siloam International Tbk in the 2019-2023 period, while the highest value was 0.100000 obtained by PT ANTAM Tbk, PT Astra International Tbk, PT. Indocement Tunggal Prakarsa Tbk, PT Japfa Comfeed Indonesia Tbk, PT. Jasa Marga (Persero) Tbk, PT. Kalbe Farma Tbk, PT. Perusahaan Gas Negara Tbk, PT. Housing Development (Persero) Tbk, PT Sido Muncul Herbal Medicine and Pharmacy Industry Tbk, PT. Semen Indonesia (Persero) Tbk, PT. United Tractors Tbk, PT. Unilever Indonesia Tbk, and PT Wijaya Karya (Persero) Tbk. The average value (mean) is 0.640000 with a standard deviation value of 0.482418. The results of the descriptive analysis show a mean value that is greater than the standard deviation value, meaning this shows that the Eco Efficiency variable has relatively small variations from the average. This suggests that the data tend to have high values overall and have significant variation around the mean.

4. 2 Panel Data Regression Estimation

Table 2. Conclusions from Panel Data Regression Model Testing

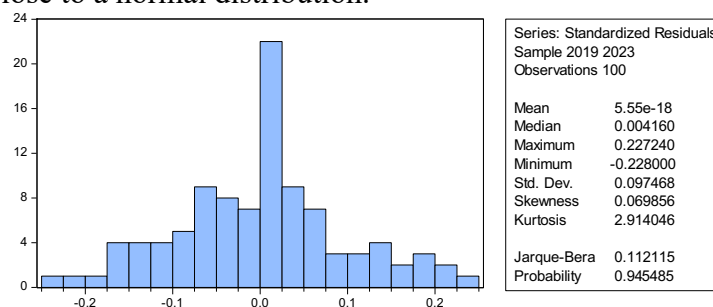| No	Method	Testing	Results
1	Test Chow	Common Effect Vs Fixed Effect	Fixed Effects
2	Hausman Test	Fixed Effects Vs Random Effects	Fixed Effects

Source: Data processed by researchers, 2024

Can concluded that the model is correct For used in estimate Green Intellectual Capital, Green Innovation and Eco Efficiency variables on Sustainability Performance is the Fixed Effect Model.

4.3 Classic Assumption Test
4.3.1 Normality Test

The normality test in the regression model is used to evaluate whether the residual values from the model are normally distributed. A regression model is considered good if the residual values meet the normality assumption, which means the residual distribution is close to a normal distribution.

| Series: Standardized Residuals |
| Sample 2019 2023 |
| Observations 100 |
| |
| Mean 5.55e-18 |
| Median 0.004160 |
| Maximum 0.227240 |
| Minimum -0.228000 |
| Std. Dev. 0.097468 |
| Skewness 0.069856 |
| Kurtosis 2.914046 |
| |
| Jarque-Bera 0.112115 |
| Probability 0.945485 |

Figure 2. Normality Test Results
Source: Data processed by researchers with E-Views 10.0, 2024

Based on results histogram graph, the Jarque-Bera value is 0.112115 with mark probability amounted to 0.945485, which is bigger from significance 0.05. This shows that the data is in This research is distributed in a way normal.

4.3.2 Multicollinearity Test

Multicollinearity test is something method for evaluate is there is significant correlation between two or more variable independent in the regression model. How to detect multicollinearity is with inspect mark coefficient correlation between variable independent. Multicollinearity test results presented in the table following:

Table 3. Multicollinearity t test

Variables	GIC	G.I	EE
GIC	1,000000	0.499995	0.397366
G.I	0.499995	1,000000	0.272166
EE	0.397366	0.272166	1,000000

Source: Data processed by researchers with E-Views 10.0, 2024

Based on results calculations listed in Table 3, all variable independent show mark correlation between less variables from 0.80. so that No cause problem multicollinearity in the regression model, this gives confidence addition that every variable independent give contribution without exists significant interference between One each other.

4.3.3 Heteroscedasticity Test

Heteroscedasticity test aim for test is there is inequality in variance of intermediate residuals One observation to observation other in the regression model.

Table 4. Heteroscedasticity Test

F- statistic	1.713161	Prob. F(3.96)	0.1694
Obs *R- squared	5.081580	Prob. Chi- Square (3)	0.1659
Scaled explained SS	3.561552	Prob. Chi- Square (3)	0.3129

Source: Data processed by researchers with E-Views 10.0, 2024

Based on the test results listed in Table 4, the F-statistical probability value is 0.1694. Because the F-statistical probability value is greater than the specified significance level (0.1694 > 0.05), it can be concluded that there is no heteroscedasticity problem in the regression model.

4.3.4 Autocorrelation Test

Autocorrelation test aims to determine whether there is a relationship between errors (residuals) in the linear regression model between different time periods.

Table 5. Autocorrelation Test

R- squared	0.550142	Mean dependent var	0.574300
Adjusted R- squared	0.421611	SD dependent var	0.145319
SE of regression	0.110518	Akaike info criterion	-1.368640
Sum squared resident	0.940497	Schwarz criterion	-0.769451
Log likelihood	91.43200	Hannan-Quinn criter .	-1.126137
F- statistic	4.280225	Durbin-Watson stat	1.339906
Prob (F- statistic)	0.000001		

Source: Data processed by researchers with E-Views 10.0, 202

Based on the output of Eviews results on shows that the Durbin-Watson (DW) value of 1.339906 is between -2 and +2 or -2 < 1.339906 < +2. then the regression model does not experience autocorrelation and this regression model is suitable for use.

4.4 Panel Data Regression Analysis

Table 6. Results of Regression Analysis Equation I

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-1.517541	0.458961	-3.306469	0.0014
GIC	2.107681	0.436595	4.827542	0.0000
G.I	0.223202	0.319926	0.697666	0.4875
EE	-0.070000	0.123563	-0.566513	0.5727

Source: Data processed by researchers with E- Views 1 0 .0, 2024

Based on table 6, regression equation is obtained as follows:

$$KK = -1.517541 + 2.107681 + 0.223202 – 0.070000 + e$$

Based on this equation it can be interpreted as follows:

1) The coefficient value obtained is -1.517541, which means that if the independent variable is considered non-existent, there will be a decline in sustainability performance of -1.517541.
2) Intellectual Capital regression coefficient value obtained is 2.107681 and is positive, this means that every increase in Green Intellectual Capital will increase Sustainability Performance by 2.107681.
3) Innovation regression coefficient value obtained is 0.223202 which is positive, this means that every increase in Green Innovation will increase Sustainability Performance by 0.223202.
4) Efficiency regression coefficient value obtained is -0.070000 which is negative, this means that every decrease in Eco Efficiency will reduce Sustainability Performance by -0.070000.

4.5 Hypothesis Test

4.5.1 F Test Results

Testing in a way simultaneous or f test is used for test influence variable independent in a way together to variable dependent. Criteria taking decisions used is if mark F-statistical probability < α (0.05) then H0 is rejected or H1 is accepted so that concluded that variable independent influential significant in a way simultaneous to variable dependent. Hypothesis testing in a way simultaneous can see in table under this:

Table 7. F Test Results

R- squared	0.550142	Mean dependent var	0.574300
Adjusted R- squared	0.421611	SD dependent var	0.145319
SE of regression	0.110518	Akaike info criterion	-1.368640
Sum squared resident	0.940497	Schwarz criterion	-0.769451
Log likelihood	91.43200	Hannan-Quinn criter.	-1.126137
F- statistic	4.280225	Durbin-Watson stat	1.339906
Prob (F- statistic)	0.000001		

Source: Data processed by researchers with E- Views 1 0 .0, 2024

Table output results above Prob (F-statistic) for the whole model shows value 0.000001, meaning mark probability smaller from significance 0.05. so concluded the variables Green Intellectual Capital, Green Innovation and Eco Efficiency have an influence on Sustainability Performance.

4.5.2 T Test Results

The t test was used for test influence between variable independent in a way Partial to variable dependent. Basis for taking t test decision is as following:

Table 8. T Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-1.517541	0.458961	-3.306469	0.0014
GIC	2.107681	0.436595	4.827542	0.0000
G.I	0.223202	0.319926	0.697666	0.4875
EE	-0.070000	0.123563	-0.566513	0.5727

Source: Data processed by researchers with E- Views 1 0 .0, 2024

Based on table 8 it can be seen that:

1) The second hypothesis is that the Green Intellectual Capital variable has a probability value of 0.0000. This probability value is smaller than the significance level set at 0.05, therefore, it can be concluded that Green Intellectual Capital has an effect on Sustainability Performance.
2) The third hypothesis for the Green Innovation variable has a probability value of 0.4875. This probability value is greater than the significance level set at 0.05, therefore, it can be concluded that Green Innovation has no effect on Sustainability Performance.
3) The fourth hypothesis, the Eco Efficiency variable, has a probability value of 0.5727. This probability value is greater than the significance level set at 0.05, therefore, it can be concluded that Eco Efficiency has no effect on Sustainability Performance.

4.5.3 Coefficient of Determination

Test result coefficient The adjusted R Square determination is 0.421611 which means that 42.16 % of the Sustainability Performance Can explained by the variables Green Intellectual Capital, Green Innovation and Eco Efficiency studied, meanwhile the remaining 57.84% is explained by other outside variables study.

4.6 Discussion

H1 shows that the variables Green Intellectual Capital, Green Innovation and Eco Efficiency have an influence on Sustainability Performance. Where are the results testing regression showing that variable that Green Intellectual Capital, Green Innovation and Eco Efficiency have a Prob (F-statistic) of 0.000001, the value the smaller If compared to level significance α 0.05. Research result This in line with researcher previously Yusliza (2019) stated that Green Intellectual Capital is influential positive to performance sustainability, Putra et al (2022) stated that Green Innovation is influential positive to performance sustainability and Khairunisa et al (2022) also stated that Eco Efficiency has an effect positive to performance continuity. Stakeholder theory emphasizes that company must consider interests and hopes from various parties involved, e.g., employees, customers, society, government, and others. Sustainability performance No only be measured from perspective financial (profitability and performance operational), but also from impact resulting positive towards these stakeholders. For example, management good environment can reduce impact negative company to community surroundings, which is one aspect from continuity. In other words, results This answer view theory steak holders.

H2 shows that The Green Intellectual Capital variable has an influence on Sustainability Performance. Where are the results testing regression showing that own mark probability of 0.0000. Probability value This smaller from level established significance α 0.05. This result consistent with results research conducted (Yusliza , et al , 2019) states that green intellectual capital has an influence positive towards sustainable performance and according to Zalfa (2021) stated that green intellectual capital has an influence positive towards sustainable performance. If companies can integrate green intellectual capital into the company's strategy well, this can create a high barrier to entry for competitors. Competitors may find it difficult to imitate or pursue the same level of knowledge and expertise in environmentally friendly practices, which strengthens the company's position in the market. In other words, these results answer the Resource- Based theory.

H3 shows that the Green Innovation variable has no effect on Sustainability Performance. Where the results of the regression test show that it has a probability value of 0.4875. This probability value is greater than the significance level set at α 0.05. These results are not in line with the results of research conducted by (Putra, et al, 2022) stating that Green Innovation has a positive effect on sustainability performance and (Firdausyi, et al, 2023) states that Green Innovation has a positive effect on sustainability performance. Based on the results obtained when using Resource- Based theory, the RBV Theory emphasizes that a company's internal resources and capabilities must be rare, valuable, inimitable and non-substitutable to create competitive advantage, but Green Innovation does not have a significant impact on Sustainability Performance. , this may be because Green Innovation is not unique or does not provide benefits that can be implemented sustainably in the long term. In other words, these results do not support the Resource- Based theory.

H4 shows that the Eco Efficiency variable affects Sustainability Performance. Where the results of the regression test show that it has a probability value of 0.5727. This probability value is greater than the significance level set at α 0.05. This result is in line with researcher Hartini (2020) who stated that Eco Efficiency does not have a positive effect on sustainability performance, but is not in line with the results of research conducted (Khairunissa, et al, 2022) which states that Eco Efficiency has a positive effect on sustainability performance. Resource- Based Theory is the RBV Theory which emphasizes that a company's internal resources and capabilities must be rare, valuable, and difficult to imitate to create a competitive advantage, but Eco Efficiency does not have a significant impact on sustainability performance, perhaps the efficiency strategy is not unique or does not provide a significant competitive advantage. can be extended in the long term. It is important to consider how Eco Efficiency is implemented and integrated into a company's operations. If the test results show that Eco Efficiency has no effect on sustainability performance, there may be deficiencies in the implementation of efficiency practices or a lack of integration with other aspects of the operational strategy that support sustainability. In other words, these results do not support the Resource- Based theory.

5. Conclusion

This research aims to measure Green Intellectual Capital, Green Innovation, Eco Efficiency, with sustainability performance carried out at Sri- Kehati companies listed on the Indonesia Stock Exchange (BEI) 2019 - 2023. Based on the research that has been carried out it can be concluded that:

1) It is statistically proven that the variables Green Intellectual Capital, Green Innovation, Eco Efficiency, influence sustainability performance. This means that, from the results of the data analysis carried out, there is evidence to support that these three variables have a positive influence on sustainability performance.
2) It is statistically proven that the Green Intellectual Capital variable influences sustainability performance. This means that intellectual assets that focus on green or environmentally friendly practices have a significant positive impact on a company's ability to achieve sustainable goals.
3) It is statistically proven that the Green Innovation variable has no effect on sustainability performance. This means that the results of statistical analysis show that there is no significant relationship between the Green Innovation variable and sustainability performance.
4) It is statistically proven that the Eco Efficiency variable has no effect on sustainability performance. This means that in the research or analysis, Eco Efficiency does not have a significant impact on the level of sustainability being measured or assessed.

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