

The Role Of Financial Performance In Mediating The Relationship Between Green Innovation And Eco-Efficiency On Company Value

Peran Kinerja Keuangan Dalam Memediasi Hubungan Green Innovation Dan Eco-Efficiency Terhadap Nilai Perusahaan

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ABSTRACT

Environmental pollution resulting from increasingly advanced industrial development has become one of the basic assessments for investors in making investment decisions. Environmental pollution that occurs can be prevented by implementing green innovation and eco-efficiency strategies so that companies are able to innovate in an environmentally friendly manner and minimize costs incurred for production. A company is expected to have good financial performance so that it can increase company value and convince investors in making decisions. This research is quantitative research with a research sample of manufacturing companies listed on the Indonesia Stock Exchange (BEI) in the 2019-2022 period using purposive sampling research techniques. The research results show that the application of green innovation has an effect on company value, while eco-efficiency and financial performance have no effect on company value. Financial performance is unable to mediate the relationship between green innovation and eco-efficiency on company value.

Keywords : Green Innovation, Eco-Efficiency, Financial Performance, Firm Value.

ABSTRAK

Pencemaran lingkungan akibat perkembangan industri yang semakin maju menjadi salah satu dasar penilaian investor dalam mengambil keputusan berinvestasi. Pencemaran lingkungan yang terjadi dapat dicegah dengan menerapkan strategi inovasi hijau dan keefisiensi sehingga perusahaan mampu melakukan inovasi ramah lingkungan dan meminimalkan biaya yang dikeluarkan untuk produksi. Suatu perusahaan diharapkan memiliki kinerja keuangan yang baik sehingga dapat meningkatkan nilai perusahaan dan meyakinkan investor dalam mengambil keputusan. Penelitian ini merupakan penelitian kuantitatif dengan sampel penelitian pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) periode 2019-2022 dengan menggunakan teknik penelitian purposive sampling. Hasil penelitian menunjukkan bahwa penerapan inovasi hijau berpengaruh terhadap nilai perusahaan, sedangkan keefisiensi dan kinerja keuangan tidak berpengaruh terhadap nilai perusahaan. Kinerja keuangan tidak mampu memediasi hubungan antara inovasi hijau dan keefisiensi terhadap nilai perusahaan.

Kata Kunci: Inovasi Ramah Lingkungan, Efisiensi Lingkungan, Kinerja Keuangan, Nilai Perusahaan.

1. Pendahuluan

The company value is a reference for investors in making investment decisions, this can happen because when the company value increases, the share price also increases so that the profits obtained are also higher. An increase in company value reflects the company's ability to compete and achieve stability in the long term, which is in accordance with the company's main goal of increasing the welfare of shareholders which can be realized through increasing company value (Aviyanti, 2019).

Factors such as funding decisions, investment, dividends, capital structure, profit growth, and company size can influence company value (Irnawati, 2021). Profit growth plays a very important role in increasing company value and can reflect the company's efficiency in managing costs. If a company's financial performance improves, it will indirectly increase the price of shares in circulation so that it can have a positive impact on the value of the company.

High awareness is needed for a company to pay more attention to the conditions of the surrounding environment when carrying out its activities. The waste produced is one example that can be the center of attention for companies in reducing environmental pollution. Companies that are able to overcome environmental pollution problems will provide a good image for the surrounding community.

Environmental pollution is not something foreign to the community because quite a lot of people have been affected by waste disposal, one of which is carried out by PT Pindo Deli in Karawang as reported by *Republika.co.id* in September 2022. PT Pindo Deli produces air pollution from factory gas exhaust which caused residents to be taken to hospital. The pollution carried out by PT Pindo Deli reflects that awareness of the importance of environmentally friendly activities is still low.

Green innovation and eco-efficiency are strategies to increase company value. Green innovation creates product diversification and reduces environmental pollution, but implementing green innovation certainly requires quite a lot of costs so companies can compensate by implementing eco-efficiency strategies to minimize operational costs. Financial performance acts as a mediator between the implementation of green innovation and eco-efficiency on company value.

Several previous studies have tested the influence of green innovation and eco-efficiency on company value, but still show different results. According to research by Dewi and Rahmianingsih (2020), green innovation and eco-efficiency have a significant positive influence on company value, however, this is not in line with research conducted by Damas, Maghviroh, Indreswari (2021) where eco-efficiency has a negative influence on company value and According to research by Tonay and Murwaningsari (2022), green innovation has a negative influence on company value.

This research provides novelty regarding financial performance as a mediating variable in analyzing the influence of green innovation and eco-efficiency on firm value. Financial performance is a mediation because it is able to provide an overview of the financial condition of a company, so that it can function as an indicator for investors that the application of green innovation and eco-efficiency is expected to improve financial performance through reducing environmental pollution so that the company is able to improve operational performance which has an impact on improving financial performance so that the company value increases.

2. Metode Penelitian

This research is quantitative research carried out by testing hypotheses to determine the results of analysis regarding the influence of the role of financial performance as a mediator in the relationship between green innovation and eco-efficiency and company value. This research was carried out by collecting data in the form of annual and sustainability reports of manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the 2019-2022 period.

The population in this study are manufacturing companies that are listed on the Indonesia Stock Exchange (BEI). The sample for this research is manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the 2019-2022 period. The sampling technique uses purposive sampling with the following specific criteria:

1. Manufacturing companies registered on the IDX for the 2019-2022 period.
2. Manufacturing companies that present financial reports in IDR.
3. Companies that issue consecutive annual reports during the 2019-2022 period in full.

The dependent variable in this research is company value with the independent variables green innovation and eco-efficiency and the mediating variable, namely financial performance. This research is quantitative research with secondary data. This research uses

annual reports and sustainability reports of manufacturing companies for the 2019-2022 period obtained from the IDX (www.idx.co.id).

3. Hasil dan Pembahasan

Coefficient of Determination Test (R²)

Table 1. Coefficient of Determination Test Results

| Equation | R ² |
|------------|----------------|
| Equation 1 | 0,028 |
| Equation 2 | 0,068 |

Source: Processed data (2024)

Table 1 shows that equation 1 has an R² value of 0.028 or 2.8%, which means that the independent variable has an ability of 2.8% to explain the dependent variable. The remaining 97.2% are other variables not used in this research. Equation 2 has an R² value of 0.068 or 6.8%, which means that the independent variable has an ability of 6.8% to explain the dependent variable and the remaining 93.2% is another variable that is not used in this research.

F Test

Tabel 2. F Test Result

| Equation | Signifikansi | Information |
|-------------|--------------|--------------|
| Persamaan 1 | 0,036 | Decent model |
| Persamaan 2 | 0,001 | Decent model |

Source: Processed data (2024)

Table 2 shows that equations 1 and 2 have a significance value below 0.005 so they can be said to be fit or feasible. Equation 1 has a significance value of 0.036 and equation 2 has a significance value of 0.001.

Hypotesis Test

Tabel 3. Hypotesis Test Result

| Equation | Variable | Koef (B) | Sig | Information |
|----------|----------|----------|-------|--------------------|
| 1 | GIN | 0,011 | 0,862 | No effect |
| | EE | 0,164 | 0,013 | Positive influence |
| 2 | GIN | 0,183 | 0,005 | Positive influence |
| | EE | 0,125 | 0,057 | No effect |
| | KK | 0,069 | 0,285 | No effect |

Source: Processed data (2024)

Table 3 shows that in equation 1 the green innovation variable has no impact on financial performance and the eco-efficiency variable has a positive effect on financial performance. In equation 2, the green innovation variable shows a positive influence on company value. Meanwhile, the eco-efficiency variable does not have a significant impact on company value. Likewise, the financial performance variable also does not have a significant influence on company value.

Path Analysis

The regression equation used in path analysis is as follows:

Equation 1

$$KK = c_1 + p_{1a}GIN + p_{1b}EE + e_1$$

$$KK = 0,020 + 0,002GIN + 0,015EE + 0,986$$

Equation 2

$$NP = c_2 + p_2aGIN + p_2bEE + p_3KK + e_2$$

$$NP = 0,747 + 0,178GIN + 0,073EE + 0,425KK + 0,992$$

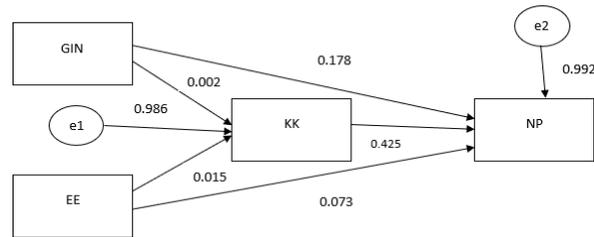


Figure 1. Path Analysis

Figure 1 shows the magnitude of the direct influence between the independent variable and the dependent variable. The green innovation variable has an effect of 0.178 on company value, the eco-efficiency variable has an effect of 0.073 on company value, and the financial performance variable has an effect of 0.425 on company value. Meanwhile, the indirect influence between the independent variable on the dependent variable can be done by multiplying the coefficients, namely as follows:

1. The indirect effect of green innovation (GIN) on company value (NP) is $0.002 * 0.425 = 0.00085$
2. The indirect effect of eco-efficiency (EE) on company value (NP) is $0.015 * 0.425 = 0.006375$

Based on the results above, if the indirect impact has a smaller value than the direct impact, it can be concluded that the mediating variable does not play a mediating role between the independent variable and the dependent variable. Meanwhile, to measure the impact of the independent variable on the dependent variable, it can be done by combining the results of the direct and indirect impacts, as follows:

1. The total influence of green innovation (GIN) on company value (NP) is $0.178 + 0.00085 = 0.17885$
2. The total effect of eco-efficiency (EE) on company value (NP) is $0.073 + 0.006375 = 0.079375$.

Sobel Test

Sobel test calculations can be done as follows:

$$sab = \sqrt{(b * sa)^2 + (a * sb)^2 + (sa * sb)^2}$$

The influence of green innovation on company value through financial performance:

$$sab = \sqrt{(0.425 * 0.010)^2 + (0.002 * 0.396)^2 + (0.010 * 0.396)^2}$$

$$sab = \sqrt{0,0000180625 + 0,000000627264 + 0,0000156816}$$

$$sab = \sqrt{0,0001963693264}$$

$$sab = 0,014013$$

$$t = \frac{ab}{sab}$$

$$t = \frac{0,425 * 0,002}{0,014013}$$

$$t = 0,06065$$

The effect of eco-efficiency on company value through financial performance:

$$sab = \sqrt{(0.425 * 0.006)^2 + (0.015 * 0.396)^2 + (0.006 * 0.396)^2}$$

$$sab = \sqrt{0,0000065025 + 0,0000352836 + 0,000005645376}$$

$$sab = \sqrt{0,000047431476}$$

$$sab = 0,00688705$$

$$t = \frac{ab}{s_{ab}}$$

$$t = \frac{0,425 * 0,015}{0,00688705}$$

$$t = 0,92565$$

Based on the calculation above, the green innovation variable obtained a t-count of 0.06065 which is smaller than 1.96 so it does not meet the requirements of the Sobel test, so financial performance cannot mediate the relationship between green innovation and company value. The eco-efficiency variable also has a t-value of 0.92565 which is smaller than 1.96 and does not meet the requirements of the SOBA test, so financial performance cannot mediate the relationship between eco-efficiency and company value.

Discussion

The Effect of Green Innovation on Company Value

The results of the hypothesis test carried out state that green innovation has a significant positive effect on company value with a significant value of 0.005, thus indicating that H1 is accepted. Companies that implement green innovation will avoid environmental and social risks so they can increase company value and provide positive signals to investors. Apart from that, the application of green innovation is able to provide a good image for society through the company's responsibility towards the environment, this makes investors tend to be more interested in companies with a good reputation or image.

The results of testing this hypothesis are in line with research by Dewi and Rahmianingsih (2020) and Damas, et al (2021) which states that green innovation has a positive influence on company value. Companies that implement green innovation will experience an increase in demand for environmentally friendly products, this can provide benefits for investors when investing because the share value will increase according to the growth in company value.

The Effect of Eco-Efficiency on Company Value

The results of the hypothesis test carried out show that eco-efficiency has no influence on company value, so H2 is rejected. This can be shown by the magnitude of the significance value, namely 0.057, so it is considered to have no effect. Basically, the application of eco-efficiency can provide added value to company value both through cost savings and improving the company's image, but the impact of eco-efficiency will only be visible in the long term.

This research uses ISO 14001 to show companies that implement eco-efficiency. The implementation of ISO 14001 depends on the strategy and commitment of each company. In this research sample, not all companies have ISO 14001 certification. A total of 110 samples or 46% in this research were not ISO 14001 certified so that ISO 14001 cannot fully be a requirement for measuring eco-efficiency.

The results of hypothesis testing are different from research by Aviyanti (2019) which states that eco-efficiency has a significant positive effect on company value, but is in line with research by Silaban and Dewi (2023) where it is said that eco-efficiency has no effect on company value. Implementing eco-efficiency often focuses on reducing costs resulting in significant savings, but the impact on company value cannot be seen directly.

The Influence of Financial Performance on Company Value

The results of the H3 hypothesis test show that financial performance has no effect on company value, so H3 is rejected. This can be shown by the large significance value, namely 0.285, so it is considered to have no effect. In general, financial performance is able to reflect the value of the company, but in some conditions financial performance may not fully reflect

the value of the company due to the presence of several other factors that influence the value of the company.

The results of this test are in line with research by Supramono and Saputri (2021) which shows that Return on Assets (ROA) as an indicator of financial performance does not affect company value. This is caused by an increase in assets that occurs without an increase in profits in certain periods. Apart from that, there was a decline in profits in certain periods which meant that financial performance could not affect the company's current value. However, the results of this test are not in line with research by Yuniarti, et al (2022) which states that financial performance has a significant positive influence on company value.

The Effect of Green Innovation on Company Value with Financial Performance as Mediator

The results of testing hypothesis H4 show that financial performance cannot mediate the relationship between green innovation and company value. This hypothesis was rejected because the results of the Sobel test that had been carried out gave a value of 0.06065, which was smaller than the required value. Apart from that, this hypothesis is rejected because in equation 1, green innovation has no effect on financial performance and in equation 2 financial performance has no effect on company value.

The results of this test are not in line with research by Yuniarti, et al (2022) where it is said that financial performance fully mediates the influence of green innovation on company value. The implementation of green innovation is more related to sustainability and positive impacts on the environment than to financial performance because green innovation is difficult to measure financially but usually focuses more on improving image or reputation which is not reflected in financial performance.

The Effect of Eco-Efficiency on Company Value with Financial Performance as Mediator

The results of testing hypothesis H5 show that financial performance cannot mediate the relationship between eco-efficiency and company value. This hypothesis was rejected because the results of the Sobel test that had been carried out gave a value of 0.92565, which was smaller than the required value. Even though in equation 1 eco-efficiency has a significant positive effect on financial performance, in equation 2 financial performance has no effect on company value so the hypothesis is rejected.

The results of this test are not in line with research by Rais & Usman (2020) which states that financial performance is able to mediate the relationship between eco-efficiency and company value. Implementing eco-efficiency requires significant costs that can harm financial performance at the start, before long-term benefits can be realized. Therefore, the impact on financial performance cannot be seen immediately and takes time so it affects financial performance.

5. Penutup Kesimpulan

Based on the results of the tests carried out in this research, it can be concluded that green innovation has a significant positive effect on company value, Eco-efficiency has no effect on company value, this happens because the application of eco-efficiency often focuses on reducing costs so as to produce significant savings. significant, but the influence on company value cannot be seen directly, financial performance has no effect on company value, Green innovation has no influence on company value with financial performance as a mediator and Eco-efficiency has no influence on company value with financial performance as a mediator.

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