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The Effect of ESG Implementation and Operational Efficiency on Company Performance at PT Agrojaya Perdana

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ABSTRACT

This research looks at how following ESG standards and improving operational efficiency, either on their own or together, affects the performance of PT. Agrojaya Perdana. This investigation employs a quantitative research methodology. The study's data comprises quantitative information, which is gathered in numerical or statistical form. The data for this research was derived from primary sources, obtained from questionnaire responses provided by PT. Agrojaya Perdana employees. The study's participants were the workers of PT. Agrojaya Perdana. From the population, a sample of 30 was selected. The equation is provided by the analysis findings Company Performance = 6.205 + 0.254 ESG Implementation + 0.548 Operational Efficiency + e. the outcomes derived from the t-test including ESG factors has a significant favorable impact on a company performance at PT. Agrojaya Perdana where t_{count} (2.043) > t_{table} (1.999), operational efficiency significantly improves the company performance at PT. Agrojaya Perdana where t_{count} (5.980) > t_{table} (1.999), the F-test results show that F_{count} (71.780) > F_{table} (3.15) which means that. The independent variables (ESG implementation and operational efficiency) simultaneously affect the dependent variable (company performance). The coefficient of determination (R^2) findings show that 70.5% of company performance variables are influenced by ESG implementation and operational efficiency meanwhile, the remaining 29.5% is explained by other variables.

Keywords: ESG, Operational Efficiency, Company Performance, PT. Agrojaya Perdana

INTRODUCTION

PT. Agrojaya Perdana is a company engaged in the agro-industry, specifically in palm kernel processing. Facing global challenges, increasing societal demands, and the development of sustainable business standards, companies are required to focus not only on profitability but also on environmental, social, and governance aspects, commonly known as ESG.

Data from the Sustainable Palm Oil Transparency Toolkit (SPOTT) show variations in the level of ESG implementation within Indonesia's palm oil industry, where Dharma Satya Nusantara Tbk recorded an ESG score of 90.4% in 2023, while Astra Agro Lestari Tbk achieved only 36.6%. A study published by MDPI (2024) also indicated an increase in the average scores for environmental aspects from 71.28% to 77.69%, social aspects from 78.93% to 81.77%, and governance aspects from 69.34% to 69.98% during the 2022–2023 period. These data illustrate that, although progress has been made in adopting sustainability principles, significant disparities remain among companies, emphasizing the importance of ESG integration for firms such as PT Agrojaya Perdana to enhance competitiveness and operational sustainability.

The implementation of ESG principles has become a key indicator in evaluating a business competitiveness and sustainability, especially in the palm oil sector, which is frequently criticized for environmental and social issues. For PT. Agrojaya Perdana, integrating ESG into its operational strategy is a necessity, not just an option. This is achieved through various policies and support systems aimed at increasing transparency, accountability, and awareness of the environmental, social, governance, impacts of its business processes.

As awareness of the importance of sustainability grows, companies worldwide, including PT. Agrojaya Perdana, are faced with the challenge of managing resources efficiently and responsibly. In the palm oil industry, in places where problems like deforestation, climate change, and human rights violations are often talked about, using ESG principles becomes especially important. By adoption of sustainable practices allows organizations to satisfy legal obligations and meet consumer preferences, while additionally providing long-term benefits in the form an improved corporate image and heightened competitiveness in global markets.

The implementation of ESG in companies still faces several obstacles, such as limited resources, low employee understanding of ESG principles, and sub-optimal ESG reporting and evaluation systems. This raises questions about the extent to which ESG implementation actually impacts company performance, including financial, reputation, and operational aspects. The imbalance between designed ESG policies and their implementation can lead to inefficiencies in business strategy and hinder the achievement of corporate sustainability goals.

In addition to the challenges of implementing ESG, PT. Agrojaya Perdana also faces challenges in operational efficiency. As a company that relies on large-scale production processes, PT. Agrojaya Perdana relies heavily on efficient resource management, including the use of raw materials, energy, labor, and distribution. However, in practice, resource waste, sub-optimal work processes, and an operational management system that is less than responsive to market changes are still found. This leads to increased production costs and decreased productivity. The lack of regular evaluation of operational processes and minimal innovation in work efficiency are also major obstacles to achieving optimal performance. Therefore, it is important to examine the extent to which operational efficiency affects the company's performance.

The problem becomes even more complex when companies must simultaneously integrate ESG implementation with operational efficiency improvements. PT. Agrojaya Perdana faces the challenge of balancing environmental conservation, social compliance, and good governance with the need to improve efficiency and productivity. In some cases, efforts to meet ESG standards are perceived as increasing costs and slowing down operational processes, for example, in the form of investing in environmentally friendly equipment or ongoing employee training. Conversely, if efficiency is pursued without considering ESG principles, companies could face reputation risks and regulatory sanctions. This situation raises strategic issues. How does the simultaneous implementation of ESG and operational efficiency impact company performance are they mutually supportive or conflicting. Therefore, an in-depth analysis is necessary the objective is to investigate the analysis aims to examine the interplay between these two variables and to assess the degree of their impact on PT. Agrojaya Perdana performance, providing insights into the significance of each factor in supporting the company’s growth and sustainability.

LITERATURE REVIEW

Company Performance

According to Nurlaila (2025), the performance of a company is a key determinant of its success, especially as market competition continues to intensify. Performance not only demonstrates a company's capacity to achieve profits but also its ability to maintain long-term business continuity. Facing ever-evolving market dynamics, companies are required to focus not only on short-term profits but also on implementing strategies that support future operational sustainability. According to Durlista (2023), company performance indicators are:

1. Performance Targets
   Companies need to consider ESG performance targets in determining corporate strategies.
2. Profitability
   Company profitability may increase as a result of publishing more environmental information.
3. Sustainability Report
   Sustainability reports are company indicators covering environmental, social and governance aspects.
4. Risks and Challenges
   Companies must pay attention to and be ready to face future risks, challenges and opportunities.
5. Corporate Strategy
   One of the company indicators in decision making from an integral aspect is company strategy.
6. Standardization
   Clear standardization regarding company frameworks and indicators so that the information disclosed by companies can be compared.

ESG Implementation

According to Durlista (2023), ESG is a broad taxonomy in determining non-financial requirements for a company, ESG is the practice of measuring, disclosing and accounting for social, environmental, and governance impacts to the parties involved, ESG describes designed to evaluate the environmental, social, governance impacts of businesses and their investments beyond financial outcomes. ESG also provides various business and investment opportunities that ESG information this approach helps businesses adapt to evolving environmental conditions and, in addition, allows sustainability to be embedded as a crucial aspect of their competitive strategy. According to Mardiana (2025), indicators of ESG implementation are:

1. Environmental
   ESG indicators cover environmental issues related to how companies manage environmental issues, such as waste management and carbon emissions.
2. Social
   ESG indicators include social, namely how companies interact with the community and employees, including social responsibility and treatment of workers.
3. Governance
   ESG indicators include governance that focuses on company structure and policies.

According to Gharchia (2023), indicators of ESG implementation are:

1. Transparency
   The implementation of ESG companies is expected to improve performance with the principle of transparency of company information to the public.
2. Responsibility

The importance of environmental, social and governance responsibilities that can create and improve a good reputation for the company.

3. Sustainability
   Companies are required to pay attention to the importance of sustainability to disclose their responsibilities towards the environment, social, and governance which are able to create and improve a good reputation for the company.

Operational Efficiency

According to Judijanto (2024), Operational Efficiency is a company ability to optimally manage resources, processes, and operational activities to produce maximum output with minimal use of labor, time, and other resources. According to Judijanto (2024), operational efficiency indicators are:

1. Efficient and Effective
   Increasing operational efficiency, the company facilitates more efficient and effective resource management to stimulate better decision-making processes.
2. Decision Making
   The key drivers of operational efficiency are adaptive and innovative strategic decision-making and collecting relevant data to analyze their impact.
3. Use of Technology
   Advancement in the use of technology to optimize the full potential of management technology in optimizing various operational processes and detailing the decision-making framework as well as sustainable growth and competitive advantage.
4. Integrated
   An integrated management system can automate routine tasks, improve interdepartmental coordination, and reduce human error.
5. New Innovation
   Implementing appropriate management technology by creating new innovations, enabling companies to develop better products and services, and enter markets that were previously difficult to reach.
6. Process Automation
   Implementing process automation can optimize internal processes, companies can reduce operational costs, generating significant profits.
7. Productivity
   Operational efficiency can increase productivity, responsiveness to the market, and create an adaptive business model in a dynamic business environment.

Based on the understanding of the variables above, the hypothesis of this study is:

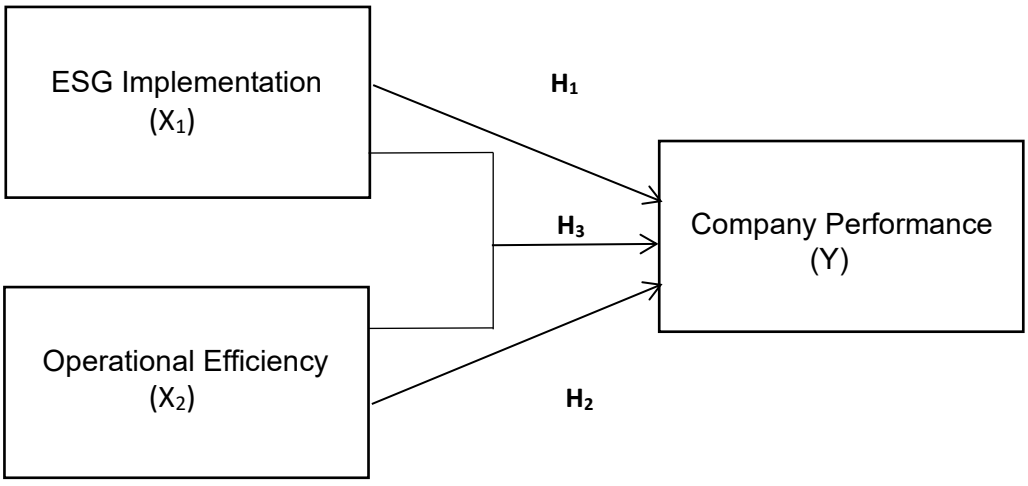

Figure 1. Research Framework

H_1: It is hypothesized that the ESG implementation has a significant effect on the company performance at PT. Agrojaya Perdana.
H_2: It is hypothesized that the operational efficiency has a significant effect on the company performance at PT. Agrojaya Perdana.
H_3: It is hypothesized that the ESG implementation and operational efficiency simultaneously have a significant effect on the company performance at PT. Agrojaya Perdana.

RESEARCH METHOD

PT. Agrojaya Perdana located at Jl. Kl Yos Sudarso KM 15,5, Martubung, Kec. Medan Labuhan, Medan City, North Sumatra 20252, is where this study was carried out. From August 2025 to September 2025. This type of research is quantitative, using a questionnaire distributed to employees at PT. Agrojaya Perdana. According to Creswell (2023), quantitative research is an approach to proving a theory by measuring several variables. These variable measurements are then analyzed using statistics and produce numerical data.
This research was conducted using primary data. According to Sugiyono (2018), primary data is information that a researcher gets directly from the subject or place being studied, and it's collected by the researcher themselves. According to Kuncoro (2020), a population is defined as a collection of data with certain characteristics selected by the researcher for investigation and inference. In this case, the population comprises employees of PT. Agrojaya Perdana. There were 63 workers from PT. Agrojaya Perdana involved in this study. According to Kuncoro (2020), the sample is defined as a segment of the population selected through a certain method. For this research, purposive sampling was used as the sampling technique. According to Dana (2020), this method of sampling is used when the researcher has predetermined targets with attributes that align with the research criteria. Data obtained through the questionnaire were analyzed using SPSS software to test how ESG and how well a company runs its operations affect how well the company does overall.
In this investigation, the following sample criteria were used:
1. Employees working at PT. Agrojaya Perdana in 2025.
2. Employees in the QMS, Legal, HRD, Finance, and Production departments.

RESULTS

According to Sugiyono (2019), a validity test is a way to check how well a tool can measure what it is supposed to measure accurately.

Table 1. Validity Test

Variable		R_{count}	R_{table}	Criteria
ESG Implementation (X_1)	X1.1	0.421	0.361	$R_{count} > R_{table}$
	X1.2	0.542	0.361	$R_{count} > R_{table}$
	X1.3	0.441	0.361	$R_{count} > R_{table}$
	X1.4	0.690	0.361	$R_{count} > R_{table}$
	X1.5	0.673	0.361	$R_{count} > R_{table}$
	X1.6	0.694	0.361	$R_{count} > R_{table}$
	X1.7	0.767	0.361	$R_{count} > R_{table}$
	X1.8	0.648	0.361	$R_{count} > R_{table}$
	X1.9	0.616	0.361	$R_{count} > R_{table}$

	X1.10	0.677	0.361	$R_{count} > R_{table}$
	X1.11	0.730	0.361	$R_{count} > R_{table}$
	X1.12	0.441	0.361	$R_{count} > R_{table}$
	X1.13	0.632	0.361	$R_{count} > R_{table}$
	X1.14	0.480	0.361	$R_{count} > R_{table}$
	X1.15	0.487	0.361	$R_{count} > R_{table}$
	X1.16	0.460	0.361	$R_{count} > R_{table}$
	X1.17	0.435	0.361	$R_{count} > R_{table}$
	X1.18	0.751	0.361	$R_{count} > R_{table}$
	X1.19	0.649	0.361	$R_{count} > R_{table}$
Operational Efficiency (X_2)	X2.1	0.734	0.361	$R_{count} > R_{table}$
	X2.2	0.752	0.361	$R_{count} > R_{table}$
	X2.3	0.682	0.361	$R_{count} > R_{table}$
	X2.4	0.840	0.361	$R_{count} > R_{table}$
	X2.5	0.626	0.361	$R_{count} > R_{table}$
	X2.6	0.514	0.361	$R_{count} > R_{table}$
	X2.7	0.808	0.361	$R_{count} > R_{table}$
	X2.8	0.491	0.361	$R_{count} > R_{table}$
	X2.9	0.417	0.361	$R_{count} > R_{table}$
	X2.10	0.415	0.361	$R_{count} > R_{table}$
	X2.11	0.379	0.361	$R_{count} > R_{table}$
	X2.12	0.632	0.361	$R_{count} > R_{table}$
	X2.13	0.607	0.361	$R_{count} > R_{table}$
	X2.14	0.604	0.361	$R_{count} > R_{table}$
	X2.15	0.418	0.361	$R_{count} > R_{table}$
	X2.16	0.655	0.361	$R_{count} > R_{table}$
	X2.17	0.669	0.361	$R_{count} > R_{table}$
	X2.18	0.547	0.361	$R_{count} > R_{table}$
	X2.19	0.647	0.361	$R_{count} > R_{table}$
	X2.20	0.520	0.361	$R_{count} > R_{table}$
	X2.21	0.757	0.361	$R_{count} > R_{table}$
	X2.22	0.594	0.361	$R_{count} > R_{table}$
Company Performance (Y)	Y1	0.467	0.361	$R_{count} > R_{table}$
	Y2	0.622	0.361	$R_{count} > R_{table}$
	Y3	0.656	0.361	$R_{count} > R_{table}$
	Y4	0.580	0.361	$R_{count} > R_{table}$
	Y5	0.587	0.361	$R_{count} > R_{table}$
	Y6	0.692	0.361	$R_{count} > R_{table}$
	Y7	0.708	0.361	$R_{count} > R_{table}$
	Y8	0.741	0.361	$R_{count} > R_{table}$
	Y9	0.630	0.361	$R_{count} > R_{table}$
	Y10	0.795	0.361	$R_{count} > R_{table}$

	Y11	0.620	0.361	$R_{count} > R_{table}$
	Y12	0.787	0.361	$R_{count} > R_{table}$
	Y13	0.727	0.361	$R_{count} > R_{table}$
	Y14	0.373	0.361	$R_{count} > R_{table}$
	Y15	0.443	0.361	$R_{count} > R_{table}$
	Y16	0.565	0.361	$R_{count} > R_{table}$
	Y17	0.647	0.361	$R_{count} > R_{table}$
	Y18	0.743	0.361	$R_{count} > R_{table}$
	Y19	0.657	0.361	$R_{count} > R_{table}$

Source: Data processed, 2025

The findings of the variables validity test (X_1) of ESG implementation show that each R_{count} value is > R_{table} 0.3610 so it can be concluded that as many as 19 questionnaire questions for variable X_1 are declared valid. For variable (X_2) of operational efficiency, each R_{count} value is > R_{table} 0.3610 so it can be concluded that as many as 22 questionnaire questions for variable X_2 are declared valid. The findings of the variables validity test (Y) of company performance show that each R_{count} value is > R_{table} 0.3610 so it can be concluded that as many as 19 questionnaire questions for variable Y are declared valid.

Reliability Test
According to Sugiyono (2019), when measuring the same thing over time or with different groups, a reliability test can be used to determine how accurate or consistent the instrument is.

Table 2. Reliability Test

Variable	Cronbach's Alpha Grades	Reliability Value	Criteria	Conclusion
ESG Implementation	0.750	0.600	Cronbach's Alpha Grades > Reliability Value	Reliable
Operational Efficiency	0.752	0.600	Cronbach's Alpha Grades > Reliability Value	Reliable
Company Performance	0.754	0.600	Cronbach's Alpha Grades > Reliability Value	Reliable

Source: Data processed, 2025

According to the findings of the reliability test, the variables Cronbach's Alpha values indicate that (X_1) ESG implementation 0.750 > 0.600, for the variable (X_2) operational efficiency 0.752 > 0.600, and the variable (Y) company performance has a Cronbach's Alpha of 0.754 > 0.600, this means the research tool for variables X_1, X_2, and Y is considered reliable and falls into the acceptable reliability range.

Classical Assumption Test

Normality Test

According to Ce Gunawan (2020), to determine whether data is regularly distributed, apply the normality test and whether it most likely originated from a population group with a normal distribution.

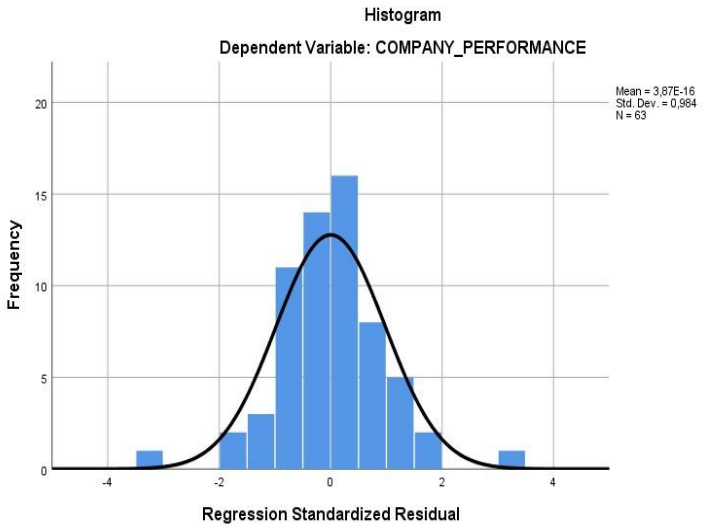

Figure 2. Histogram Graph
Source: Data processed, 2025

Looking at figure 2, the histogram shows that the standardized residual regression curve has a shape like a bell. This means the data follows a normal distribution.

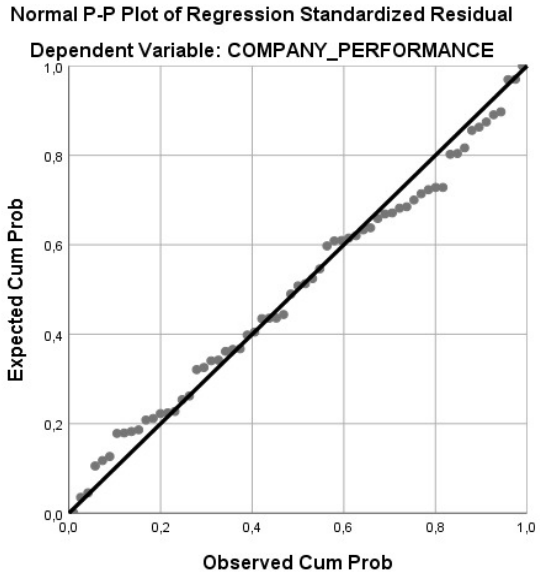

Figure 3. Normality Probability Plot
Source: Data processed, 2025

The data in figure 3, normality probability plot are dispersed around and along the diagonal line, indicating that the data has a normal distribution

Table 3. One Kolmogorov-Smirnov Test

Unstandardized Residual	
N	63
Asymp Sig (2-tailed)	0.200

Source: Data processed, 2025

A significance level of 0.200, or greater than 0.05, was found by the One-Sample Kolmogrov-Smirnov test for normality, demonstrating the normal distribution of the data.

Heteroscedasticity Test

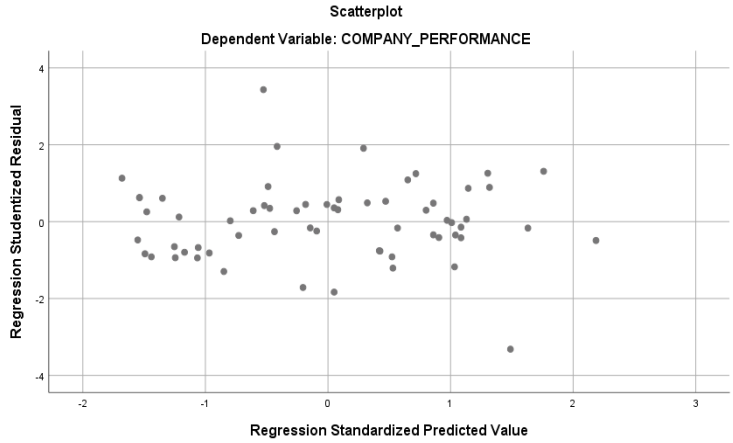

Figure 4. Scatterplot Graph
Source: Data processed, 2025

The scatter plot shows that the points are dispersed haphazardly and without any discernible pattern. The fact that they are dispersed both above and below the Y-axis zero line indicates that heteroscedasticity is not present.

Multicollinearity Test

According to Ce Gunawan (2020), the multicollinearity test is a type of regression model check that helps find out if there is a relationship between different variables. This test uses the variance inflation factor (VIF) and tolerance to figure out if multicollinearity is present.

Table 4. Multicollinearity Test Results

Model		Collinearity statistics	
		Tolerance	VIF
1	(Constant)		
	ESG Implementation	0.409	2.445
	Operational Efficiency	0.409	2.445

Source: Data processed, 2025

In table 4 above, it is shown that the correlation between the ESG implementation and operational efficiency variables has a tolerance value of 0.409, which is greater than 0.1,

and a VIF value of 2.445, which is less than 10. this means that the ESG implementation and operational efficiency variables do not show signs of multicollinearity.

Multiple Linear Regression Analysis
The following equation is the outcome of the multiple linear regression analysis test:

Company Performance = 6.205 + 0.254 ESG Implementation + 0.548 Operational Efficiency + e

The analysis findings that the company performance has a value of 6.205, meaning that if the ESG implementation variables value (X_1) and operational efficiency (X_2) is zero, the company performance is stable at 6.205, it can be concluded. ESG implementation has a value of 0.254, this indicates that for each ESG implementation variable (X_1) that rises by one unit, the performance of the business will rise by 0.254. operational efficiency has a value of 0.548, this indicates that for each operational efficiency variable (X_2) that increases by one unit, the company performance will rise by 0.548.

Hypothesis test

Partial Significance test (T test)
According to Sugiyono (2019), the t-test, sometimes referred to as the partial test, is used to ascertain whether the independent variable significantly affects the dependent variable.

Table 5. T test results

Model		t	Sig
1	(Constant)	1.225	.225
	ESG Implementation	2.043	.045
	Operational Efficiency	5.980	.000

Source: Data processed, 2025

With a significant level of 0.045 < 0.5, the study indicates that the computed t_{count} 2.043 > t_{table} 1.999 in the ESG implementation variable (X_1), indicating a strong positive influence partially between ESG implementation on company performance this H_1 is accepted. Then in the operational efficiency variable (X_2) the calculated t_{count} 5.980 > t_{table} 1.999 with a significant positive influence partially between operational efficiency on company performance this H_2 is accepted.

Simultaneous Significance Test (F Test)
According to Sugiyono (2019), this test determines if the dependent variable is significantly impacted by the two independent factors acting alone or in combination.

Table 6. F test results

Model		F	Sig
1	Regression	71.780	.000[b]
	Residual		
	Total		

Source: Data processed, 2025

This H_3 is accepted based on the preceding table, which shows that ESG implementation and operational efficiency have a simultaneous impact on company performance, with the F_{count} 71.780 > F_{table} 3.15 and a significance level of 0.000 < 0.05.

Test Coefficient of Determination (R^2)
According to Sugiyono (2019), the purpose of this test is to identify how strongly the independent affects the dependent variable when considered individually.

Table 7. Results of the Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square
1	.840[a]	.705	.695

Source: Data processed, 2025

The dependent variable is measured with an R-square value of 0.705. according to the test result, ESG implementation and operational efficiency account for 70.5% of a company performance, with other factors not included in this study influencing the remaining 29.5%.

DISCUSSION

The Effect of ESG Implementation on Company Performance at PT. Agrojaya Perdana
The ESG implementation variable shows a regression coefficient of 0.254 with a t_{count} 2.043 > t_{table} 1.999, the ESG implementation variable has a significance value of 0.045, which is less than 0.05. This demonstrates that the variable significantly improves PT. Agrojaya Perdana business success. As an example of practical application, companies can examine how implementing ESG practices such as transparent governance, social programs involving local communities, or environmental initiatives like water and energy efficiency can strengthen reputations, improve operational efficiency, and ultimately drive business growth. These finding aligns with previous research by Saiful Hakim (2025).

The Effect of Operational Efficiency on Company Performance at PT. Agrojaya Perdana
The operational efficiency variable has a regression coefficient of 0.548 and a calculated t_{count} 5.980 > t_{table} 1.999, with a significance value of 0.000 < 0.05. therefore, this demonstrates that PT. Agrojaya Perdana business performance is significantly improved by the operational efficiency variable. As an example of practical application, companies can explore how improving operational efficiency such as optimizing production processes, reducing logistics waste, or implementing automation and lean management systems can improve productivity, lower unit costs, and ultimately enhance overall business performance. These finding aligns with previous research by Judijanto (2024).

The Effect of ESG Implementation and Operational Efficiency on Company Performance at PT. Agrojaya Perdana
The ESG implementation and operational efficiency variables had an F_{count} 71.780 > F_{table} 3.15. This demonstrates that the synchronized integration of environmental, social, governance principles along with enhancements in operational efficiency yield a substantial beneficial impact on the company performance of PT. Agrojaya Perdana. Furthermore, the coefficient of determination (R^2) test obtained an R-square value for the dependent variable company performance of 0.705, indicating that 70.5% of company performance is influenced by ESG implementation and operational efficiency. The remaining 29.5% is impacted by additional factors that this study did not look at. As

an example of practical application, companies can integrate ESG policies with operational efficiency improvement strategies such as the use of renewable energy, digitalization of production processes, and transparent governance to enhance business competitiveness and sustainability. These finding aligns with previous research by Judijanto (2024).

CONCLUSION

The study results show that the three variables studied, namely ESG implementation, operational efficiency, and the combination of both, implementing ESG principles has a big effect on how well the company does at PT. Agrojaya Perdana. It has been shown that following ESG practices helps the company perform better. Where environmental awareness, social responsibility, and good governance can support the achievement of company goals and increase long-term efficiency. Operational efficiency also makes a significant contribution, particularly in reducing production costs, increasing productivity, and optimizing the use of existing resources. Furthermore, when ESG implementation and operational efficiency are implemented simultaneously and integrated, their impact on company performance becomes stronger and complementary. This finding confirms that a company success in achieving optimal performance is determined not only by internal efficiency, but also by the degree to which the business can implement ethical and sustainable business practices.

REFERENCES

Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, *20*(7), 1409–1428. https://doi.org/10.1108/CG-06-2020-0258

Amrie Firmansyah, N. D. (2021). Peran Tata Kelola Perusahaan Dalam Kinerja Operasional dan Kinerja Pasar Di Indonesia. *Jurnal Ekonomi*, *26*(2), 196. https://doi.org/10.24912/je.v26i2.746

Anggraeni, M. (2022). *Pengaruh Environmental, Social, dan Governance (ESG) DisclosureTerhadapKinerja Keuangan Perusahaan di Indonesia*.

Ce Gunawan. (2020). *Mahir Menguasai SPSS Panduan Praktis Mengolah Data Penelitian*. CV. Budi Utama.

Creswell. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (6th edition)*. SAGE.

D'Angelo, V., Cappa, F., & Peruffo, E. (2023). Green manufacturing for sustainable development: The positive effects of green activities, green investments, and non-green products on economic performance. *Business Strategy and the Environment*, *32*(4), 1900–1913. https://doi.org/10.1002/bse.3226

Dana. (2020). Sampling Methods in Research Design. *The Journal of Head and Face Pain*, *60*(1), 8–12.

Dkhili, H. (2024). Does environmental, social and governance (ESG) affect market performance? The moderating role of competitive advantage. *Competitiveness Review: An International Business Journal*, *34*(2), 327–352.

https://doi.org/10.1108/CR-10-2022-0149

Dorthy, H. (2023). Metode Penelitian Kuantitatif. Sanabil.

Durlista, M. A., & Wahyudi, I. (2023). Pengaruh Pengungkapan Environmental, Social dan Governance (ESG) terhadap Kinerja Perusahaan pada Perusahaan sub Sektor Pertambangan Batu Bara Periode 2017-2022. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, *7*(3), 210–232. https://doi.org/10.31955/mea.v7i3.3327

Eagle High Plantations. (2024). *Sustainability strategy*. Eagle High Plantations Tbk.

EOS Consultant. (2022). Pentingnya Sustainability Report Bagi Perkembangan Perusahaan. *VRC International* .

Gartia, U., & Panda, A. K. (2024). Do the firm characteristics moderate the nexus between the firm's sustainable practices and financial performance? *Business Strategy & Development*, *7*(2). https://doi.org/10.1002/bsd2.376

Gharchia, S. E. De, & Mindosa, B. (2023). Pengaruh Environmental, Social, dan Governance terhadap Profitabilitas pada Perusahaan terdaftar di BEI 2021. *Jurnal Manajemen*, *12*(2), 68–86. https://doi.org/10.46806/jm.v12i2.1092

Judijanto, L., Marsas, E. G., Putri, P. A. N., Koerniawati, D., & Apramilda, R. (2024). Peningkatan Efisiensi Operasional Bisnis Melalui Implementasi Teknologi Manajemen Terkini. *Community Development Journal : Jurnal Pengabdian Masyarakat*. https://doi.org/https://doi.org/10.31004/cdj.v5i1.24225

Kuncoro. (2020). *Metode Riset Untuk Bisnis & Ekonomi* (Edisi 3). Erlangga.

Lubis, M. F. F., & Rokhim, R. (2021). The Effect of Environmental, Social, and Governance (ESG) Disclosure and Competitive Advantage on Companies Performance as An Implementation of Sustainable Economic Growth in Indonesia for Period of 2015-2019. *IOP Conference Series: Earth and Environmental Science*, *940*(1), 012059. https://doi.org/10.1088/1755-1315/940/1/012059

Maji, S. G., & Lohia, P. (2023). Environmental, social and governance (ESG) performance and firm performance in India. *Society and Business Review*, *18*(1), 175–194. https://doi.org/10.1108/SBR-06-2022-0162

Mardiana, M., & Hanani, T. (2025). The Effect of Environmental, Social, and Governance (ESG) Performance on Corporate Financial Performance in Indonesia: Based on the Perspective of Innovation. *Ndonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*.

Marpaung, L. W. (2024). Analysis of the Impact of Carbon Emissions and Renewable Energy on Economic Growth in Indonesia. *In Proceeding International Business and Economics Conference (IBEC)* , *(Vol. 3*, *No. 1)*, 191–200.

Novitasari, M., & Agustia, D. (2023). Competitive Advantage as a Mediating Effect in the Impact of Green Innovation and Firm Performance. *Business: Theory and Practice*, *24*(1), 216–226. https://doi.org/10.3846/btp.2023.15865

Nurlaila, F. S., & Mutmainah, S. (2025). Pengungkapan ESG dan Kinerja Perusahaan:

Keunggulan Kompetitif sebagai Moderasi. *Jurnal Proaksi*, *12*(2), 156–167. https://doi.org/10.32534/jpk.v12i2.6986

Saiful Hakim, M. ., Jauhari, M. H. ., & Safitri, I. . (2025). Sustainable Company: Examining the Influence of Environmental, Social and Governance in Improving Company Performance. *Eduvest - Journal of Universal Studies*, *5*(6), 7122–7133. https://doi.org/10.59188/eduvest.v5i6.51478

Sugiyono. (2018). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. CV. Alfabeta.

Sugiyono. (2019). *Metode Penelitian Kuantitatif*. CV. Alfabeta.

Suhardjo, I., Akroyd, C., & Suparman, M. (2024). Unpacking Environmental, Social, and Governance Score Disparity: A Study of Indonesian Palm Oil Companies. *Journal of Risk and Financial Management*, *17*(7), 296. https://doi.org/10.3390/jrfm17070296

Syntia Sumarni, & Linda Wahyu Marpaung. (2024). The Effect of Corporate Governance and Environmental Performance on the Disclosure of Carbon Emissions in Manufacturing Companies listed on the Indonesia Stock Exchange (IDX). *Proceeding International Business and Economics Conference (IBEC)*, *3*(1), 248–259. https://doi.org/10.47663/ibec.v3i1.27

Tampubolon, M. Y., & Putri Wahyuni. (2024). The Effect of Sustainability Report Disclosure, Environmental Costs and ISO 14001 Certification on Company Value in Mining Sector Companies Listed on the Indonesia Stock Exchange. *Proceeding International Business and Economics Conference (IBEC)*, *3*(1), 120–132. https://doi.org/10.47663/ibec.v3i1.256

Widuta, V., & Situmorang, F. (2024). The Effect of Environmental Costs and Capital Structure Against Profitability at UD Sederhana. In *Proceeding International Business and Economics Conference (IBEC)* (Vol. 3, No. 1, pp. 282-292).