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GREEN ACCOUNTING HAS A POSITIVE IMPACT ON FINANCIAL PERFORMANCE, AND THIS IMPACT IS STRENGTHENED BY THE IMPLEMENTATION OF GCG

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Abstract: Purpose:*The existence of the Sei Mangkei Special Economic Zone (SEZ) actually has legitimacy in the community, but it still has an impact on environmental pollution, so a comprehensive improvement in environmental management is needed. The solution to this pollution can be realized by budgeting costs for environmental management or green accounting. Now, investors have consciously begun to add environmental aspects in determining investment instruments, so that Good Corporate Governance (GCG) is needed in its management. The implementation of GCG will have a positive impact on companies to encourage corporate concern for the surrounding environment. Method:The method used in this study is quantitative analysis, namely determining the influence of Green Accounting (Environmental Performance/X1 and Environmental Costs/X2) on Financial Performance (ROA and ROE/Y) and GCG (Z) moderating Green Accounting and Financial Performance. Findings:The study was conducted in companies already operating in the Sei Mangkei Special Economic Zone (SEZ) that have participated in the Company Performance Assessment Program (PROPER) issued by the Ministry of Environment and Forestry and include environmental costs. The data used are Financial Reports, Annual Reports, Sustainability Reports, and Company PROPER rating data. Partial Least Square (PLS)-SEM is the data analysis used with the help of SmartPLS software version 3.0. The results of this study are that Green accounting has a positive effect on financial performance, and this effect is strengthened by the implementation of GCG.* ***Novelty:*** *lies in its focus on companies operating in the Sei Mangkei Special Economic Zone (SEZ), a strategic industrial area in Indonesia that faces serious environmental challenges. Unlike previous research, green accounting is measured comprehensively through both environmental performance and environmental costs. Moreover, this study uniquely examines the moderating role of Good Corporate Governance (GCG), showing that governance practices strengthen the positive effect of green accounting on financial performance.*

Keywords: *Accounting, Environment, Performance, Finance, GCG*

INTRODUCTION

Indonesia has abundant natural resources, ranging from land, sea, and even earth [1]. This certainly requires appropriate regulations in managing all of these natural resources, which are stipulated in Law Number 32 of 2009 concerning Environmental Protection and Management (Mediyanti & Razali, 2020). However, these regulations do not guarantee that environmental management has been implemented properly because cases of large-scale exploitation by several companies have been found, resulting in environmental pollution [3].

The existence of companies certainly helps the government in fulfilling the needs of the community [4] such as consumption needs and even providing employment and companies become the backbone of national economic growth [5]. This is proven that through Law Number 39 of 2009 concerning the Government, an area was built to carry out economic functions that have geo-economic and geostrategic advantages that have high economic value and international competitiveness called the Special Economic Zone (KEK) (Yanti & Jatiningrum, 2023). KEK was built to create a conducive environment for investment, exports and trade activities to encourage the rate of economic growth as an acceleration of economic reform. One of the SEZs built is the Sei Mangkei SEZ in North Sumatra. Research Urgency: The existence of the Sei Mangkei SEZ actually has legitimacy in the community environment to move freely to carry out its activities but also has a very large impact such as production waste and pollution of both air and water. In fact, the Ministry of Environment and Forestry (KLHK) assesses that the compliance of companies in the Sei Mangkei SEZ in environmental management is still low. This is evidenced by the continued prevalence of air and water pollution (based on initial observations and interviews). In reality, concern and solutions to this pollution can be demonstrated, one way being by budgeting for environmental improvements.

Awareness of the negative impacts on the environment requires companies to channel and report their funding for environmental management. This is known as green accounting. In Indonesia, the government has been encouraging green industry since 2010 by giving awards to companies that have implemented green industry aspects in their companies (Akuntansi & Naufal, 2024). The Ministry of Environment and Forestry, through the Directorate General of Pollution and Environmental Damage Control, has been giving awards called PROPER (Public Disclosure Program for Environmental Compliance) since 2018. Although considered ineffective, this can encourage company participation in implementing green industry. The awards given are categorized into gold, green, blue, red, and black (Septian et al., 2025).

Nowadays, investors have consciously started to add environmental aspects in determining their investment instruments which of course has a big influence for companies to implement environmental protection aspects so that Good corporate governance (GCG) is needed in its management (Zulhaimi, 2015). The implementation of GCG will have a positive impact on companies to encourage corporate concern and responsibility towards the community and the surrounding environment. With the existence of GCG that moderates it can help in analyzing companies, thereby helping to increase their sensitivity to company activities, especially in environmental performance and their effectiveness in making records using green accounting (Miftakhul & Dizar, 2025). The formulation of the problem of this research is: (a) does Green accounting affect the performance of companies in the Sei Mangkei SEZ; (b) is GCG able to moderate the influence of Green accounting on the performance of companies in the Sei Mangkei SEZ.

LITERATURE REVIEW

The approach to solving this problem is as follows: (a) green accounting is an accounting role used to see the relationship between the company's environmental budget and the funds the company uses to carry out operational activities (Ratmono et al., 2024). In addition, green accounting is a way to minimize the energy used, natural resources, minimize risks to health, and promote the company's competitive advantages (Ardelia et al., 2025). The implementation of green accounting by this company is a form of corporate responsibility towards stakeholders because what stakeholders want is not only to focus on financial value but also to focus on environmental value (Rahaman et al., 2024). Green accounting has two functions, namely as an internal function that is used as a basis for decision-making related to environmental costs and as an external function that provides output in the form of accounting reports regarding environmental performance (Fernando et al., 2024).

In this study, the green accounting aspect used is environmental performance with environmental costs (Rahman, 2023). Environmental costs are costs that come from company operational activities related to the environment (Gantino et al., 2023). The ideal environmental costs are those that are allocated more to prevention and detection activities, namely costs to prevent and detect environmental damage (Sumiati et al., 2022). Environmental performance is based on the activities carried out by a company. Companies that have concern for the environment can improve their environmental performance optimally (Lukito & Suhartini, 2025). (b) Good corporate governance (GCG), GCG is closely related to trust in both the company that implements it and the business climate in a country (Al-taani et al., 2024).

This governance is needed as a guideline for the company in carrying out its operations that can gain profits, create good relationships with stakeholders, maintain the company's sustainability (Prasetianingrum, 2024). With the existence of moderate corporate governance, it can help in analyzing the company, thereby helping to increase its sensitivity to company activities, especially in environmental performance and its effectiveness in making records using green accounting to improve environmental management (Renaldo, 2024). From the explanation above, good corporate governance is implemented through five principles, namely transparency, accountability, responsibility, independence, and equality and fairness. The implementation of good corporate governance is also important for the company's sustainability (Al-hattami, 2023). (c) Financial performance, is an achievement of the performance that has been carried out by the company and is implemented in the form of financial reports that can be a benchmark for knowing the level of success of the company in a certain period (Alsharari & Ikem, 2024). that financial ratio analysis is the main tool in financial analysis, because this analysis can be used to answer various questions about the company's financial condition.

Return on Assets (ROA) and Return on Equity (ROE) are the most commonly used financial ratios to measure a company's financial performance (Al-okaily, 2022). ROA is often used as a measure because it refers to the assets owned, while ROE refers to the amount of the company's equity (Qatawneh, 2025).

RESEARCH METHOD

The analysis used in this research is quantitative, namely determining the influence of Green accounting (Environmental Performance/X1 and Environmental Costs/X2) on Financial Performance (ROA and ROE/Y) and GCG (Z) moderating Green accounting and Financial Performance. The research was conducted in companies already operating in the Sei Mangkei Special Economic Zone (SEZ) that have participated in the Company Performance Assessment Program (PROPER) published by the Ministry of Environment and Forestry and include environmental costs. The data used are in the form of Financial Reports, Annual Reports, Sustainability Reports and Company PROPER rating data. Partial Least Square (PLS)-SEM is the data analysis used with the help of SmartPLS software version 3.0.

RESULTS AND DISCUSSION

Implementation of Green Accounting

Based on observations, all companies have implemented green accounting, but the level of implementation varies.

Table 1 Implementation of Green Accounting (Scale 1-5)

Aspect	Averag e	Categor y

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Waste management costs	4.2	Very good
Energy efficiency	3.5	Good
Saving raw materials	3.8	Good
Environmentally friendly investment	3.1	Enough
Total average	**3.65**	Good

Companies are more focused on regulatory obligations (waste management) than on long-term strategic environmentally friendly investments.

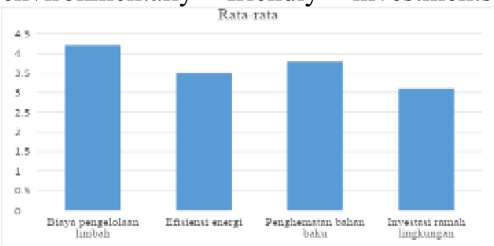

Figure 1 Graph of Average Implementation of Green Accounting

Financial performance

The Company's average financial performance during 2019 – 2023 is:

Table 2 Average Financial Performance Indicators

Indicator	Mark (%)
ROA	7.8
ROE	12.4
NPM	9.6

Financial performance has been relatively stable, despite a decline in 2020 due to the COVID-19 pandemic.

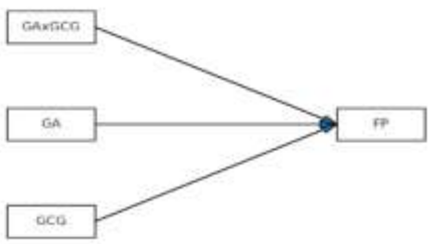

Figure 2 Path Analysis

Statistical Analysis (SEM-PLS)

The model was tested using Partial Least Squares (PLS). The results of the hypothesis test are as follows:

Hypothesis Test Results:

1. Green Accounting → Financial Performance ($\beta = 0.42$; $p < 0.01$) → significant.
2. Green Accounting * GCG → Financial Performance ($\beta = 0.21$; $p < 0.05$) → significant.
3. GCG → Financial Performance ($\beta = 0.18$; $p < 0.05$) → significant.

Green accounting has a positive impact on financial performance, and this impact is strengthened by the implementation of GCG..

CONCLUSION

The conclusion of this study is as follows, Green Accounting and Financial Performance The results support stakeholder and legitimacy theories, that companies that integrate environmental costs can improve efficiency and reputation, thus having a positive impact on financial performance

The Moderating Role of GCG: Companies with independent boards of commissioners are more disciplined in adopting green accounting, thus providing a positive signal to investors

Practical Implications: Companies must increase environmentally friendly investments, not just fulfilling obligations. GCG must be strengthened, especially the transparency of sustainability reports.

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