

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya^{1*}, Thezar Fiqih Hidayat Hasibuan², Devi Ayu Putri Sirait³

^{1,2,3} Program Studi Akuntansi, Fakultas Ekonomi dan Bisnis, Universitas Medan Area

Corresponding E-mail: Anjudayanti38@gmail.com

Received : 21 February 2025

Published : 30 April 2025

Revised : 28 February 2025

DOI : <https://doi.org/10.54443/ijset.v4i5.740>

Accepted : 12 March 2025

Publish Link : <https://www.ijset.org/index.php/ijset/index>

Abstract

This research aims to determine the effect of implementing Green Accounting, environmental performance on the profitability of manufacturing companies in the food and beverage sector listed on the Indonesia Stock Exchange in 2019 - 2023. This research uses secondary data, this secondary data was obtained from financial report data of manufacturing companies in the food and beverage sector and drinks listed on the Indonesia Stock Exchange (BEI) via www.idx.co.id or the websites of each company. The population in this study were food and beverage sector manufacturing companies listed on the Indonesian Stock Exchange, namely 42 food and beverage sector manufacturing companies. Purposive sampling technique was used to take samples in this research. The sample for this research are companies that meet the criteria, namely 8 manufacturing companies in the food and beverage sector. The data analysis technique in this research uses SPSS. The results of this research show that Green Accounting has a positive and significant effect on profitability, and environmental performance has a positive and significant effect on profitability. Meanwhile, simultaneously it shows that Green Accounting and environmental performance have a significant positive effect on profitability.

Keywords: *Green Accounting, Environmental Performance, Profitability*

INTRODUCTION

The concept of profit maximization has long been the main focus of companies. However, increasing profits without considering environmental impacts can result in exploitation of natural resources and environmental damage. Profitability reflects a company's performance in generating profits, which is very important for business continuity and investment decisions. Several manufacturing companies, such as PT Garudafood and PT Cahaya Kalba, experienced a decline in profits in the 2019–2023 period, one of which was caused by increasing operational costs and environmental management.

Tight business competition requires companies to not only focus on profits, but also on sustainability aspects, one of which is through the implementation of green accounting. Green accounting is an accounting system that takes environmental costs into account in financial reports, with the aim of providing information on the performance of companies that care about the environment. The implementation of green accounting not only helps control costs and minimize environmental impacts, but also contributes to the company's competitive advantage. Research shows that green accounting and environmental performance are closely related to profitability, where good environmental performance will have a positive impact on investor and public perceptions. However, there are also studies that show different results, so that a research gap arises regarding the relationship between the two variables and profitability.

To answer this challenge, green accounting is applied as an accounting approach that includes environmental costs in financial statements. The goal is to increase efficiency, reduce negative environmental impacts, and strengthen the company's competitiveness. The application of green accounting and improving environmental performance are believed to be able to increase profitability, although a number of studies show mixed results, creating a research gap.

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisyah et al

This study aims to analyze the effect of green accounting and environmental performance on the profitability of food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange in the period 2019–2023. The formulation of the problem includes whether green accounting and environmental performance partially or simultaneously affect profitability.

RESEARCH METHODOLOGY

This study uses a quantitative approach with a descriptive method that aims to test the effect of green accounting and environmental performance on the profitability of food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023. The data used are secondary data obtained from annual reports and sustainability reports published on the official IDX website and the official websites of each company. The research location focuses on food and beverage sub-sector manufacturing companies, with the research implementation time determined in the range of 2019 to 2023. The dependent variable in this study is profitability as measured by Net Profit Margin (NPM), while the independent variables consist of green accounting (measured by the dummy method) and environmental performance (measured through the PROPER rating).

The study population includes all food and beverage sub-sector companies listed on the IDX, with a total of 210 financial reports for five years. The sample was selected using a purposive sampling technique with certain criteria, resulting in 8 qualified companies so that the total sample was 40 financial reports. Data collection techniques were carried out through documentation studies of financial reports, annual reports, and other supporting literature. Data analysis methods include descriptive statistics, classical assumption tests (normality tests, multicollinearity, heteroscedasticity, and autocorrelation), and multiple linear regression analysis to test simultaneous and partial effects. Hypothesis testing was carried out using the t-test and F-test, and was complemented by a determination coefficient analysis (R^2) to see how much the independent variables were able to explain the variation of the dependent variable.

RESULTS AND DISCUSSION

DESCRIPTIVE STATISTICAL ANALYSIS

Table 1. Results of Descriptive Statistical Tests

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Green Accounting	40	0	1	.72	.452
Environmental Performance	40	3	4	3.15	.362
Profitability	40	32	112	76.88	17,680
Valid N (listwise)	40				

Based on the results of the descriptive statistical analysis in Table 1, each research variable has different characteristics. The Green Accounting variable shows a minimum value of 0 and a maximum of 1, with an average of 0.72 and a standard deviation of 0.452, indicating that most companies in the sample implement green accounting. For the Environmental Performance variable, the minimum value is recorded at 3 and the maximum is 4, with a standard deviation of 0.362 indicating a relatively small variation between companies in their environmental performance. Meanwhile, the Profitability variable has a minimum value of 32 and a maximum of 112, with a standard deviation of 17.680, indicating a significant difference in the level of profitability between sample companies during the observation period.

CLASSICAL ASSUMPTION TEST

NORMALITY TEST

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		40
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	15.57175579
Most Extreme Differences	Absolute	.070

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya et al

	Positive	.062
	Negative	-.070
Test Statistics		.070
Asymp. Sig. (2-tailed)		.200c,d
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

From the testing of each variable, it is stated that it is normal if it has an asymp. Sig. (2-tailed) value above 0.05. And based on table 4.3 which has been described above regarding the data normality test using the Kolmogorov Smirnov test, by looking at the asymp. Sig. (2-tailed), it is known that if the significance value is more than 0.05, namely ($0.200 > 0.05$), it can be concluded that the data taken has a normally distributed residual value.

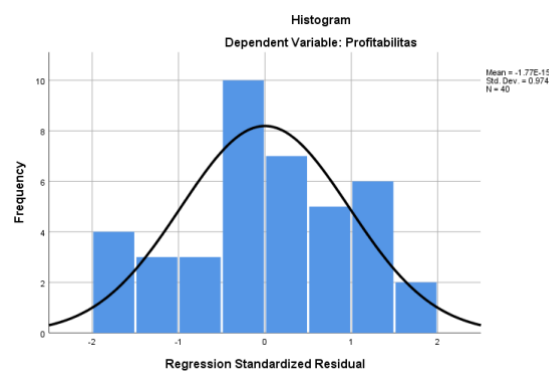


Figure 1. Histogram Normality Test Results

The image above is a histogram graph. A histogram graph is said to be normal if the data distribution forms a bell, which is neither skewed to the left nor skewed to the right. From the histogram graph image above, it can be seen that the data distribution forms a bell that is neither skewed to the left nor skewed to the right, so it can be concluded that the histogram graph is normal.

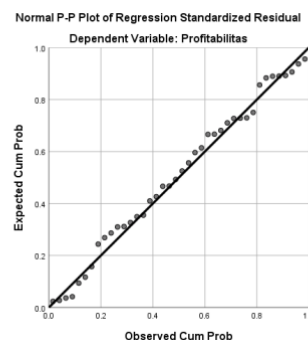


Figure 2. Normality Test Results

P-P Plot graph that can be understood by looking at the distribution of items on the diagonal line of the graph. The P-P Plot graph is said to not meet the requirements of the normality assumption if the items are spread far from the diagonal line and do not follow the direction of the diagonal line. The P-P Plot graph above shows that the data is spread around the diagonal line and follows the direction of the diagonal line. It can be concluded that the regression model is normally distributed or meets the requirements of the normality assumption.

MULTICOLINEARITY TEST

Table 3. Multicollinearity Test Results

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Green Accounting	.990	1,010

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya et al

	Environmental Performance	.990	1,010
a. Dependent Variable: Profitability			

Based on Table 3, the results of the multicollinearity test show that the independent variables Green Accounting and Environmental Performance have a tolerance value of 0.990 and a VIF value of 1.010. Because the tolerance value is greater than 0.10 and the VIF value is less than 10, it can be concluded that there are no symptoms of multicollinearity between the two independent variables in the regression model used.

HETEROSCEDASTICITY TEST

Table 4. Results of Heteroscedasticity Test

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	3.174	12.192		.796
	Green Accounting	-6.907	3,081	-.344	.381
	Environmental Performance	4,547	3,853	.181	.246
a. Dependent Variable: Abs RES					

Based on the results of the Glejser test, the independent variable Green Accounting has a significance value of 0.796 and Environmental Performance of 0.381, both of which are greater than 0.05. Therefore, it can be concluded that both variables are free from heteroscedasticity symptoms in the regression model used.

AUTOCORRELATION TEST

Table 5. Correlation Test Results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.974 ^a	.824	.782	15,987	1,784
a. Predictors: (Constant), Environmental Performance, Green Accounting					
b. Dependent Variable: Profitability					

Based on table 5 above, it is known that the results of the regression process with the Djurbin Watson test on the Summary model have a value of 1.784, which is greater than the upper limit (dU) which is 1.6000 and less than (4-du) 4-1.6589 = 2.4000. then it can be concluded in the Djurbin Watson test that there is no autocorrelation. So the regression coefficient is free from the use of autocorrelation.

MULTIPLE LINEAR REGRESSION ANALYSIS

Table 6. Multiple Linear Regression Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	137,894	22,518		.090
	Green Accounting	11,522	5,691	-.295	.040
	Environmental Performance	16,717	7.116	-.342	.024
a. Dependent Variable: Profitability					

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya et al

Based on table 6 above, it can be seen that the constant value (a value) is 137.894. For green accounting it is 11.522 and environmental performance is 16.717, so that the multiple linear regression equation can be obtained as follows: $X_1 X_2$

$$Y = Y + X_1 + X_2$$

$$= 137.894 + 11.522 + 16.717$$

Based on the results of the regression equation, a constant value of 137.894 was obtained, indicating that if the Green Accounting and Environmental Performance variables are zero, then Profitability is at 137.894. The Green Accounting variable coefficient of 11.522 indicates that every 1 unit increase in Green Accounting, assuming the Environmental Performance variable remains the same, will increase Profitability by 11.522. Meanwhile, the Environmental Performance variable coefficient of 16.717 indicates that every 1 unit increase in Environmental Performance, assuming Green Accounting remains the same, will increase Profitability by 16.717.

HYPOTHESIS TEST

PARTIAL TEST (t-TEST)

Table 7. Partial Test Results (t-Test)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	137,894	22,518		6.124
	Green Accounting	11,522	5,691	-.295	2.025
	Environmental Performance	16,717	7.116	-.342	2,349

a. Dependent Variable: Profitability

Based on table 6, the partial test results show that the Green Accounting variable (X_1) has a positive and significant effect on Profitability (Y), indicated by the t_{count} value of $2.025 > t_{\text{table}} 1.687$ and a significance value of $0.040 < 0.05$, so that H_1 is rejected and H_2 is accepted. Likewise, the Environmental Performance variable (X_2) which has a t_{count} of $2.349 > t_{\text{table}} 1.687$ and a significance value of $0.024 < 0.05$, which means that this variable also has a positive and significant effect on Profitability.

SIMULTANEOUS TEST (F-Test)

Table 8. Simultaneous Test Results (F-Test)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2734.464	2	1367.232	5,349	.005b
	Residual	9456.704	37	255,587		
	Total	12191.167	39			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Environmental Performance, Green Accounting

Based on table 8 above, it is known that the profitability value is $>$ or $5.349 > 2.87$ at a significance of 0.005 , so it is accepted. So it can be concluded that green accounting and environmental performance have a simultaneous effect on profitability in manufacturing companies listed on the Indonesia Stock Exchange. $F_{\text{hitung}} t_{\text{tabel}} H_1$

DETERMINATION COEFFICIENT TEST (R2)

Table 9. Results of the Determination Coefficient Test (R2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974a	.824	.782	15,987

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya et al

a. Predictors: (Constant), Environmental Performance, Green Accounting

Based on table 9, we can see that the adjusted R Square value is 0.782, so it can be concluded that the dependent variable (profitability) is influenced by the green accounting and environmental performance variables by 78.2% and the remaining 21.8% is influenced by other variables not examined in this study.

DISCUSSION

1. The Impact of Green Accounting Implementation on Profitability

Based on the results of data analysis and hypothesis testing, the implementation of green accounting has a positive and significant effect on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange in 2019-2023. The results of the t-statistic test show $2.025 > 1.687$ with a significance value of $0.040 < 0.05$. This shows that companies need to meet social and environmental expectations to gain public legitimacy. By investing in environmental management, companies not only prevent damage but also build a positive image that can increase stakeholder trust. Spending on environmental costs can be seen as an investment to build a good reputation and harmonious relationships with related parties, which in turn has the potential to increase profitability. This study is in line with the findings of Chasbiandani et al. (2019) which states that green accounting has a positive and significant effect on profitability.

2. The Influence of Environmental Performance on Profitability

Based on the results of data analysis and hypothesis testing, environmental performance has a positive and significant effect on the profitability of food and beverage manufacturing companies listed on the Indonesia Stock Exchange, with a t-statistic test result of $2.349 > 1.687$ and a significance value of $0.024 < 0.05$. This shows that good environmental performance, such as a high PROPER rating, can increase a company's profitability. Companies with good environmental performance tend to have a positive image, which can increase sales turnover, profits, and attract investor interest. This study is in line with the findings of Asjuwita & Agustin (2020) which state that improving environmental performance will increase profitability. However, this study is not in line with the research of Rahayu et al. (2023) which states that companies with high profitability and following PROPER are not necessarily more active in improving environmental performance, because management feels that environmental performance disclosure does not affect profitability.

3. The Influence of Green Accounting Implementation and Environmental Performance on Profitability

Based on the results of data analysis and hypothesis testing, the implementation of green accounting and environmental performance have a positive and significant effect on profitability in food and beverage manufacturing companies listed on the Indonesia Stock Exchange, with the results of the t-statistic test for green accounting of $2.025 > 1.687$ and a significance value of $0.040 < 0.05$, and the t-statistic test for environmental performance of $2.349 > 1.687$ and a significance value of $0.024 < 0.05$. This shows that spending on environmental costs and efforts to improve environmental performance contribute positively to long-term profitability. Husna Pitratul's (2023) research supports this finding, stating that environmental costs incurred by companies not only reduce negative impacts on the environment but also improve the company's image and positively affect profitability. Overall, environmental costs and environmental performance play a role together in influencing profitability, with long-term benefits such as reduced costs, improved reputation, and better relationships with stakeholders. This research is in line with research by Pasaribu (2022) and Husna Pitratul (2023) which states that green accounting and environmental performance have a positive effect on profitability.

CONCLUSION

Based on data analysis and discussion of research results, it can be concluded that the implementation of Green Accounting has a positive and significant effect on profitability in food and beverage manufacturing companies listed on the Indonesia Stock Exchange in 2019-2023. The implementation of green accounting helps companies deal with environmental problems and has a positive impact on profitability as measured by Net Profit Margin (NPM), as well as increasing public response to environmentally friendly company products. In addition, environmental performance also has a positive and significant effect on profitability, where the better the environmental performance, the higher the company's profitability. Simultaneously, the implementation of Green Accounting and environmental performance play a positive and significant role in profitability, with environmental

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya et al

costs and improved environmental performance providing significant long-term benefits, such as reduced costs, improved reputation, and better relationships with stakeholders, which support the company's profitability.

REFERENCES

- Almeida, et al. (2020). The Effect of Green Accounting Implementation and Environmental Performance on Financial Performance in Manufacturing Companies on the Indonesia Stock Exchange. *Revista Brazilian Linguistic Application*, 5(1), 1689–1699.
- Arifin, J. (2021). The Effect of Working Capital on Profitability in Property and Real Estate Companies Listed on the Indonesia Stock Exchange for the 2015-2019 Period. 4, 1545–1555.
- Chasbiandani, T., Rizal, N., & Indra Satria, I. (2019). Application of Green Accounting to Corporate Profitability in Indonesia. *Afre (Accounting And Financial Review)*, 2(2), 126–132.
- Dianty, A., & Nurrahim, G. (2022). The Effect of Green Accounting Implementation and Environmental Performance on Financial Performance. *Economics Professional In Action (E-Profit)*, 4(2), 126–135.
- Ghozali. (2018). *Multivariate Analysis Application With Ibm Spss 25 Program*. Diponegoro University.
- Ghozali, I. (2021). *Multivariate Analysis Application With Ibm Spss26 Program (10th Ed.)*. Diponegoro University Publishing Agency.
- Husna Pitratul, R. (2023). Implementation of Green Accounting and Its Impact on Company Profitability. 19(2), 249–260.
- Kotango, J., Jeandry, G., & Ali, IMA (2024). The Impact of Green Accounting Implementation, Environmental Performance and Environmental Costs on Profitability in Mining Companies Listed on the Indonesia Stock Exchange in 2018-2022. *Journal of Accounting Exploration*, 6(1), 86–102.
- Kusuma, A., Desy, D., & Anggraini, I. (2023). The Effect of Green Accounting Implementation on Profitability in Manufacturing Companies. *Business, and Social*, 1(1), 161–171.
- Lako, A. (2018). *Green Accounting*. December, December, 146.
- Lestari, R., Aisya Nadira, F., Nurleli, & Helliana. (2019). The Effect of Green Accounting Implementation on Company Profitability Levels (In Manufacturing Companies in the Consumer Goods Industry Sector at BEI in 2015-2017). *Journal of Accounting Studies*, 20(2), 124–131.
- Murniati, M., & Sovita, I. (2021). Application of Green Accounting to the Profitability of Food and Beverage Companies on the Indonesia Stock Exchange (IDX) 2015 – 2019. *Dharma Andalas Journal of Economics and Business*, 23(1),
- Olavia, L. (2021). Sales Down, Garudafood's Net Profit Corrected by 37.76%. *Beritasatu.Com*.
- Pasaribu, E. (2022). The Effect of Green Accounting Implementation on Profitability in Food and Beverage Companies Listed on the Indonesia Stock Exchange in 2016-2020. *Medan Area University Thesis*, 11.
- Pratiwi, A., Nurulrahmatiah, NN, Haryanti, IH, Huda, NH, & Ifitah, II (2023). The Effect of Green Accounting Implementation on Profitability Levels in Pharmaceutical Companies Listed on the Indonesia Stock Exchange. *Satyagraha Scientific Journal*, 6(1), 164–181.
- Pratiwi, N., & Rahayu, Y. (2018). The Effect of Green Accounting Implementation on Stock Price Growth with Profitability as a Moderating Variable. *Journal of Accounting Science and Research*, 7(8), 1–15.
- Putri, AM, Hidayati, N., & Amin, M. (2019). E-Jra Vol. 08 No. 01 February 2019 Faculty of Economics and Business, Islamic University of Malang. E-Jra, 08(03), 12–28.
- Sugiyono. (2018). *Quantitative, Qualitative, and R&D Research Methods*. Alfabeta.

THE IMPACT OF GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON PROFITABILITY IN FOOD AND BEVERAGE SECTOR MANUFACTURING COMPANIES LISTED ON THE STOCK EXCHANGE INDONESIA (BEI) IN 2019 - 2023

Anju Dayantisya **et al**

- Sulistiawati, E., & Dirgantari, N. (2017). Analysis of the Influence of Green Accounting Implementation on Profitability in Mining Companies Listed on the Indonesia Stock Exchange. *Journal of Accounting and Finance Review*, 6(1).
- Volume, A. (2024). The Influence Of Green Accounting, Environmental Performance And Liquidity On Probability. 7.
- Yuniartika, MD (2022). The Effect of Green Accounting Implementation on Profitability in Manufacturing Companies (Study on Manufacturing Companies in the Consumer Goods Industry Sector Listed on the Indonesia Stock Exchange for the 2018-2020 Period). *Journal of Accounting Exploration*, 8.5.2017, 2003–2005.