

GOOD CORPORATE GOVERNANCE MODERATES THE RELATIONSHIP BETWEEN GREEN ACCOUNTING AND FINANCIAL PERFORMANCE

Fina Fitriyana¹, Tati Rosyati²

^{1,2} Accounting Department, Universitas Pamulang

Article Info

Keywords:

Good Corporate Governance,
Green Accounting, Financial
Performance

Abstract

This study aims to empirically determine and illustrate the effect of Green Accounting factors on firm performance as measured by EVA with moderating factors related to intellectual capital, through Good Corporate Governance as represented by the Board of Directors and Audit Committee. From 2018 to 2022, consumer cyclical businesses in the industrial sector were listed on the Indonesia Stock Exchange. An associative approach to quantitative research was utilized in the technique. A method known as deliberate sampling was used to generate fifty data points. Secondary data was collected from the 2018–2022.2 fiscal years' worth of annual reports produced by state-owned enterprises using a documentation technique. Among the analytical procedures utilized with Eviews 9 software were descriptive statistics, panel data regression analysis, classical assumption tests, MRA tests, t and F statistical tests, and coefficient of determination. The results demonstrate that (1) the association between variables x (excellent corporate governance) and y (EVA) is significantly affected by the moderating variable. The Adjusted R-squared value of 0.99 indicates that the moderating variable significantly strengthens the impact of variable x, which was 27% earlier. The impact is now 99%.

Corresponding Author:

dosen02518@unpam.ac.id,
dosen02420@unpam.ac.id,

Penelitian ini bertujuan untuk secara empiris menentukan dan mengilustrasikan pengaruh faktor Akuntansi Hijau terhadap kinerja perusahaan yang diukur dengan EVA dengan faktor moderasi terkait modal intelektual, melalui Tata Kelola Perusahaan yang Baik yang diwakili oleh Dewan Direksi dan Komite Audit. Dari tahun 2018 hingga 2022, bisnis siklik konsumen di sektor industri terdaftar di Bursa Efek Indonesia. Pendekatan asosiatif untuk penelitian kuantitatif digunakan dalam teknik ini. Metode yang dikenal sebagai deliberate sampling digunakan untuk menghasilkan lima puluh titik data. Data sekunder dikumpulkan dari laporan tahunan tahun fiskal 2018–2022.2 yang dihasilkan oleh perusahaan milik negara menggunakan teknik dokumentasi. Di antara prosedur analitis yang digunakan dengan perangkat lunak Eviews 9 adalah statistik deskriptif, analisis regresi data panel, uji asumsi klasik, uji MRA, uji statistik t dan F, dan koefisien determinasi. Hasil penelitian menunjukkan bahwa (1) hubungan antara variabel x (tata kelola perusahaan yang baik) dan y (EVA) secara signifikan dipengaruhi oleh variabel moderasi. Nilai Adjusted R-squared sebesar 0,99 menunjukkan bahwa variabel moderasi secara signifikan memperkuat dampak variabel x, yang sebelumnya sebesar 27%. Dampaknya kini mencapai 99%.

INTRODUCTION

Because companies that care about the environment are viewed positively by stakeholders, financial performance can improve over time. A company's reputation will be enhanced, and its efforts to protect the environment will be recognized if it consistently demonstrates its concern for the environment.

PT Bakrie & Brother Tbk. (BNBR), the Bakrie Group's securities issuer, reported a net profit of IDR 1.96 trillion in the first half of 2023, a 52.01% increase compared to the same period last year, demonstrating this. Furthermore, BNBR's operating profit rose 383.03% to IDR 133.41 billion from IDR 27.6 billion in the same period last year. PT Bakrie Indo Infrastructure (BIIN) Group (Rp 202.86 billion), PT Bangun Bantala Indonesia (BBI) Group (Rp 1.35 billion), PT Bakrie Metal Industries (BMI) Group (Rp 1.12 trillion), and PT VKTR Teknologi Mobilitas TBK (VKTR) Group (Rp 642.19 billion) all contributed to the increase in net profit, according to the company's official statement. VKTR's consolidated automotive revenue increased by 14.5% thanks to 28.7% growth from PT Bakrie Autoparts (BA) Group and Rp 99 billion (22 units) from electric bus sales. With contributions of Rp 1.09 trillion from PT Bakrie Pipe Industries (BPI), Rp 35.07 billion from PT South East Asia Pipe Industries (SEAPI), and Rp 782 million from PT Bakrie Construction (BCons), the steel pipe manufacturer continues to be the largest source of revenue.

Green accounting, the first step in addressing these environmental issues, is one of many elements influencing financial success. Companies will be able to mitigate their environmental problems if green accounting is implemented (Hamdi, 2019). The latest development in accounting, green accounting, demonstrates that the accounting process considers social events and environmental issues, in addition to financial items, transactions, and events (Lako, 2018).

In addition to impacting financial success, green accounting also improves sustainability, health, and environmental protection. To prevent these negative impacts from worsening, society needs to manage them. Both companies and the environment can benefit from switching to a green accounting system. Environmental protection has indeed benefited, as some companies have found ways to incorporate it into their corporate social responsibility initiatives. This allows companies to cover the costs of cleaning up areas affected by industrial pollution. This prevents the environment around industrial facilities from being neglected or abandoned. Eka and Deasy Ervina (2021) found no evidence that green accounting substantially impacts financial success. However, this contradicts the findings of Astari and Gita (2022) in their study, which found that financial success is significantly influenced by green accounting.

In line with the phenomena described in the background description, this study combines previous research on green accounting and financial performance by using a sample of industrial companies as the population. This study stands out for its unusual approach in which the Board of Directors and Audit Committee evaluate superior corporate governance as a moderating component. Therefore, this study is entitled "Good Corporate Governance Moderates the Relationship between Green Accounting and Financial Performance."

Framework

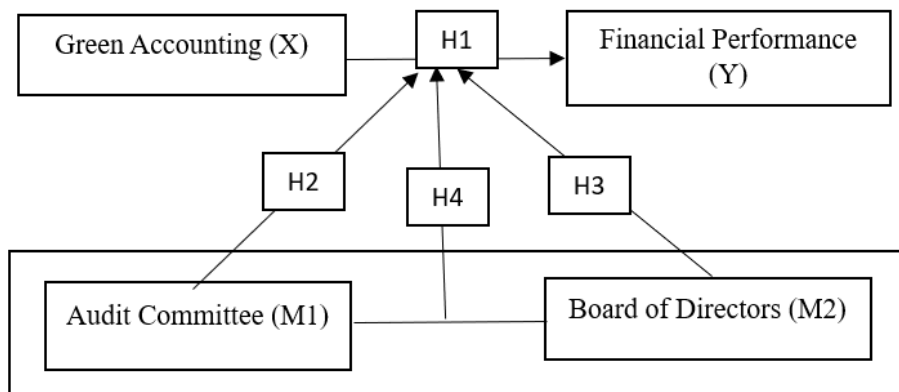


Figure 1 Framework of Thought

RESEARCH METHODS

Types of research

The correlation between variables and the validity of hypotheses based on previously established concepts are characterized using a quantitative methodology in this study. Companies listed on the Indonesia Stock Exchange in the industrial sector from 2018 to 2022 were used as data sources for this study..

Population and Sample

Consumer goods companies listed on the IDX between 2018 and 2022 constitute the study population. The sample includes industrial businesses listed on the IDX and analyzed between 2018 and 2022.

The sampling process is based on the following five criteria:

- 1) Perusahaan industri tercatat di Bursa Efek Indonesia pada tahun 2018 hingga 2022.
- 2) During the monitoring period, industrial companies released their annual reports in 2018 and 2022, respectively.
- 3) Companies in the industrial sector that consistently published annual reports in Rupiah (IDR) between 2018 and 2022.
- 4) Companies in the industrial sector that generated profits between 2018 and 2022.
- 5) Companies in the industrial sector that had comprehensive annual reports based on the variables studied between 2018 and 2022.

Operational Research Variables

1. Dependent Variable

Financial Performance, as determined by Economic Value Added (EVA), is the dependent variable in this study.

$$\text{EVA} = \text{NOPAT} - \text{Capital Charges}$$

After deducting the cost of capital from net profit after tax (NOPAT), one may obtain EVA.

Table 1 How to calculate EVA

Variabel	Indikator
EVA (<i>Economic Value Added</i>)	$EVA = NOPAT - \text{Capital Charge}$
NOPAT (<i>Net Operating Profit After Tax</i>)	$NOPAT = \text{Business Profit and Loss} - \text{Tax Burden}$
WACC (<i>Weighted Average Cost of Capital</i>)	$WACC = [(D \times rd) (1 - \text{tax}) + (E \times re)]$
IC (<i>Interested Capital</i>)	$IC = (\text{Total Debt} + \text{Equity}) - \text{Long-term debt}$
CC (<i>Capital Charges</i>)	$WACC \times IC$

Source: Rosyati & Fitriyana (2022)

2. Independent Variable

Green accounting (GA)

A concept in accounting known as "green accounting" examines how a business's economic operations impact the environment. Three information aspects and fourteen indicators are included in green accounting disclosures (Pratiwi & Suropto, 2022).

Tabel 2 Indikator Green Accounting

No	Dimensi	Indikator
1	1 contribution to society, environment, energy and human resources (workers)	1. Implementing an environmental management system 2. Energy Efficiency Initiatives 3. Emission Reduction Measures 4. Recycling and Reusing Hazardous and Non-Hazardous Waste 5. Water Conservation and Water Pollution Load Reduction 6. Biodiversity Conservation 7. Community Development Programs
2	The economic, social and ecological impacts caused by a company's operations on the environment, energy, workers and society, both positive and negative.	1. Benefits of commercial activities 2. Negative impacts of business
3	The role of companies in solving environmental problems.	1. Water Pollution Control 2. Air Pollution Control 3. Hazardous Waste Management 4. Seawater Pollution Control 5. Potential Hazards to the Environment

Source: Pratiwi & Suropto, 2022

If a company does not disclose, the score is 0, and if it does disclose, the score is between 1 and 5. Next, the fourteen indicators that need to be disclosed are divided by the total number of

green accounting items that the company has declared in its annual report (Pratiwi & Suropto, 2022).

Table 3 Content Analysis Scores

Score	Keterangan
0	If the report data is not disclosed in a manner consistent with the measurement indications.
1	A diagram (figure, table, or graph) is considered a sentence if it contains only one word. Therefore, if the disclosure contains at least one word or phrase, it is scored 1.
2	A disclosure is considered a paragraph if it consists of two or more sentences.
3	If there are two or three paragraphs in the disclosure
4	If there are four to five paragraphs in the disclosure
5	If there are more than five paragraphs in the disclosure

Source: Pratiwi & Suropto, 2022

Formula used by Pratiwi & Suropto, 2022

$$GA = \frac{\text{Total GA Disclosure Items}}{\text{Total indicators disclosed}}$$

3. Variabel Moderasi

Good Corporate Governance (GCG)

The GCG moderation variable is measured using the Board of Directors and Audit Committee..

Board of Directors

In this study, the number of directors in the company Rosyati and Fitriyana (2022) serves as a benchmark for the board of directors.

Board of Directors = Number of existing Board of Directors.

Audit Committee

The audit committee is selected based on the number of audit members within the organization.

$$\text{Audit Committee} = \sum \text{Audit Committee}$$

RESULTS AND DISCUSSION

Descriptive Statistics Results

Table 4 Descriptive Statistics Results

	Y_EVA	XM2	XM1	X_GA	M2	M1
Mean	1.451786	4.557143	8.753571	2.97E+13	5.775000	3.125000
Median	1.285714	3.857143	7.142857	7.61E+12	5.000000	3.000000
Maximum	3.357143	10.07143	18.85714	1.95E+14	11.00000	4.000000
Minimum	0.142857	0.428571	0.571429	-1.84E+14	4.000000	3.000000
Std. Dev.	0.772599	2.433963	5.366645	7.74E+13	1.804375	0.334932

Skewness	0.524193	0.328062	0.242108	-0.081792	1.163265	2.267787
Kurtosis	2.834988	2.327369	1.697974	3.891034	3.759124	6.142857
Jarque-Bera	1.877235	1.471554	3.216229	1.367837	9.981689	50.74830
Probability	0.391168	0.479133	0.200265	0.504636	0.006800	0.000000
Sum	58.07143	182.2857	350.1429	1.19E+15	231.0000	125.0000
Sum Sq. Dev.	23.27946	231.0429	1123.234	2.34E+29	126.9750	4.375000
Observations	40	40	40	40	40	40

Source: Processed data, 2025

From 2018 to 2022, eight companies from the industrial sector were listed on the IDX. Table 4 displays the descriptive statistical findings from forty observational data sets. The standard deviation of financial performance is 0.772599, while the mean is 1.451786. The minimum value of 0.142857 is associated with Financial Performance. The highest value is 3.357143. With a standard deviation of 6.12, the average score of the Board of Commissioners is 6.72. The lowest value is 4.00, while the highest is 12.00. The activity ratio has a mean of 4.4 and a standard deviation of 1.81. The table above shows a maximum value of 10 and a minimum value of 2.00. The standard deviation of the market ratio is 0.122056 and its mean is 0.442004. 0.25 is the smallest value while 1.00 is the maximum value..

Hypothesis Test Results

Coefficient of Determination (R²)

The Adjusted R-Square value is 0.021230, which is based on the findings of the R² coefficient of determination test in Table 5. Based on these findings, the Impact of Green Accounting on financial performance is 2.1% caused by independent variables and 97.9% caused by other non-research model components.

Table 5. Results of the Determination Coefficient (R²) Test

R-squared	0.004955	Mean dependent var	0.698529
Adjusted R-squared	0.021230	S.D. dependent var	0.600276
S.E. of regression	0.606615	Sum squared resid	13.98331
F-statistic	0.189227	Durbin-Watson stat	0.763880
Prob(F-statistic)	0.666021		
Unweighted Statistics			
R-squared	0.041598	Mean dependent var	1.451786
Sum squared resid	22.31108	Durbin-Watson stat	0.478756

Sumber: Data diolah, 2025

Dependent Variable: Y_EVA				
Method: Panel EGLS (Cross-section random effects)				
Date: 01/07/25 Time: 14:18				
Sample: 2018 2022				
Periods included: 5				
Cross-sections included: 8				
Total panel (balanced) observations: 40				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.057189	0.062989	-0.907930	0.3700
X_GA	2.95E-16	1.63E-16	1.814420	0.0780
XM1	-0.004665	0.006301	-0.740331	0.4639
XM2	0.338160	0.011694	28.91830	0.0000
Effects Specification			S.D.	Rho
Cross-section random			0.171362	0.9666
Idiosyncratic random			0.031850	0.0334
Weighted Statistics				
R-squared	0.996671	Mean dependent var		0.120259
Adjusted R-squared	0.996394	S.D. dependent var		0.539607
S.E. of regression	0.032404	Sum squared resid		0.037800
F-statistic	3593.048	Durbin-Watson stat		1.083150
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.947284	Mean dependent var		1.451786
Sum squared resid	1.227208	Durbin-Watson stat		0.033363

T-Statistic Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.424846	0.205499	6.933596	0.0000
X_GA	9.08E-16	2.05E-15	0.441866	0.6611

Table 6 Results of T-Statistic Test

Source: Processed data, 2025

Table 6 shows that the partial t-statistical test did not find a significant effect of the Green Accounting variable on company performance as measured by EVA, with a probability value of $0.6611 > 0.05$.

MRA (Moderation Regression Analysis) Test Results

Table 7 MRA Test Results

Source: Processed data, 2025

- 1) Table 7 shows that Good Corporate Governance has the potential to substantially reduce the relationship between EVA and Green Accounting.
- 2) A highly significant correlation (99% impact) between Green Accounting and Good Corporate Governance is demonstrated by the Adjusted R-squared value of 0.996394. There is a 1% influence from additional variables not considered.
- 3) Third, the addition of moderating variables significantly increases the influence of the independent variables on the dependent variable, from 21% to 99%.

Hypothesis Test Results

Coefficient of Determination (R²)

Table 8. Results of the Determination Coefficient (R²) Test

R-squared	0.004955	Mean dependent var	0.698529
Adjusted R-squared	0.021230	S.D. dependent var	0.600276
S.E. of regression	0.606615	Sum squared resid	13.98331
F-statistic	0.189227	Durbin-Watson stat	0.763880
Prob(F-statistic)	0.666021		
Unweighted Statistics			
R-squared	0.041598	Mean dependent var	1.451786
Sum squared resid	22.31108	Durbin-Watson stat	0.478756

Source: Processed data, 2025

The Adjusted R-Square value is 0.021230, which is based on the findings of the R² coefficient of determination test in Table 5. Based on these findings, the Impact of Green Accounting on financial performance is 2.1% caused by independent variables and 97.9% caused by other non-research model components.

T-Statistic Test Results

Table 9 Results of T-Statistic Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.424846	0.205499	6.933596	0.0000
X_GA	9.08E-16	2.05E-15	0.441866	0.6611

Source: Processed data, 2025

Table 7 shows that the partial t-statistic test did not find a significant effect of the Green Accounting variable on company success as measured by EVA, with a probability value of $0.6611 > 0.05$.

Pdiscussion

The Influence of Green Accounting on Financial Performance

The results of the partial t-statistical test shown in Table 4.14 for the Green Accounting variable, with an EVA-determined coefficient value of $9.08E-16$ and a probability value of $0.6611 > 0.05$, indicate that this variable does not significantly affect financial performance. This means that the Green Accounting variable has a direct correlation with the Financial Performance variable, which will increase by $9.08E-16$; however, this is not statistically significant.

The stakeholder theory used in this study states that businesses function in their own interests and the interests of their stakeholders. Thus, the results of this study confirm this theory. These results align with research by Hidayanti (2023), which found no relationship between financial success and the Green Accounting variable..

The Audit Committee moderates the relationship between Green Accounting and Financial Performance.

The audit committee's inability to moderate or strengthen the relationship between variables x and y is indicated by the results of the t-statistic study after the presence of moderating variables of $0.4639 > 0.05$. Companies utilize this tactic to stay connected with all parties interested in their success, including shareholders, regulators, creditors, workers, vendors, consumers, the surrounding environment, and nature, as stated in stakeholder theory. Relationships with internal and external stakeholders have a greater impact on a company's financial success than the company's financial performance itself..

The Board of Directors moderates the relationship between Green Accounting and Financial Performance

Based on the t-statistic for the board of directors variable, which is $0.0000 < 0.05$, indicating a value below 0.05, the moderating variable of the board of directors can improve the relationship between Green Accounting and Financial Performance. From a managerial perspective, this suggests that companies should pay attention to what their stakeholders value most and then report on the extent to which they have achieved improvements. This ensures the board of directors' proper performance of their duties.

Reports on business environmental initiatives should be sent to stakeholders. Since stakeholders themselves support the company's operations, this is a stakeholder right. Furthermore, according to this approach, all stakeholders have a right to know how the organization's operations affect the environment.

Good Corporate Governance proxied by (Audit Committee and Board of Directors) moderates the relationship between Green Accounting and Financial Performance (EVA).

This study found that green accounting (x) and EVA (y) are related, but the relationship is moderated by good corporate governance. With an adjusted R-squared value of 0.996394, the moderating variable Good Corporate Governance is significantly related to the Green Accounting variable (99%). We do not know what factors contribute to the remaining 1%. The influence of the independent variable on the dependent variable increases from 21% (before modification) to 99% (after modification) when the moderating variable is included. Before the moderating variable is included in the study, the relationship between X and Y is not significant, as indicated by the F statistic of $0.666021 > 0.05$. When the moderating variable is included, the F statistic value changes to $0.000000 < 0.05$, indicating that the variable significantly influences the relationship between variables X and Y. The board of directors variable, which has a value of $0.0000 < 0.05$, shows a value below 0.05. So, now we know that management's job is to do things that stakeholders deem important, and then inform them about them. This ensures that the board of directors is carrying out its responsibilities properly. Stakeholders are required to receive reports detailing the company's environmental actions. This is their right, as they are the ones who pay for the business's operating costs. This method also emphasizes that everyone has the right to know how a company's actions affect Mother Earth..

CONCLUSION

Optimal corporate governance is the theoretical foundation of our research. Industrial sector companies listed on the Indonesia Stock Exchange (IDX) used EVA to monitor the relationship between environmental accounting and financial results from 2018 to 2019. The results showed that:

- 1) Green accounting and financial success are highly correlated, with excellent corporate governance acting as a moderator.
- 2) The audit committee does not moderate this relationship.
- 3) The board of directors moderates this relationship. Contrary to expectations, this study found no correlation between green accounting and net income results.

BIBLIOGRAPHY

- Anandamaya, L. P. (2021). Pengaruh Good Corporate Governance, Ukuran Perusahaan Dan Leverage Terhadap Kinerja Keuangan. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 10(5).
- Astuti, A. Y. (2017). Pengaruh ukuran perusahaan dan leverage terhadap manajemen laba. In *FIPA: Forum Ilmiah Pendidikan Akuntansi* (Vol. 5, No. 1).
- Dewi, S. F. (2022). Pengaruh Penerapan Corporate Social Responsibility (CSR) dan Green Accounting Terhadap Kinerja Keuangan. *Jurnal Akuntansi Indonesia*, 11(1) , 73-84.
- Dianty, A. &. (2022). Pengaruh Penerapan Green Accounting dan Kinerja Lingkungan terhadap Kinerja Keuangan. *Economics Professional in Action (E-PROFIT)*, 4(2), , 126-135.
- Dita, E. M. (2021). Pengaruh Green Accounting, Kinerja Lingkungan dan Ukuran Perusahaan Terhadap Financial Performance. *JFAS: Journal of Finance and Accounting Studies*, 3(2), 72-84.
- Dura, J. &. (2022). Application green accounting to sustainable development improve financial performance study in green industry. *Jurnal Akuntansi*, 26(2), 192-212.
- Fitriyana, F. &. Rosyati, T. (2022). Pengaruh Good Corporate Governance dan Corporate Social Responsibility Terhadap Kinerja Perusahaan. *Jurnal Riset Akuntansi Politala*, 5(2), 75- 87.
- Fitriyani, D. A. (2021). Leverage, Pertumbuhan Perusahaan dan Institusional Trust terhadap Ekpektasi Return. *Value Added: Majalah Ekonomi dan Bisnis*, 17(1).
- Gemilang, M. R. (2022). Good Corporate Governance, Struktur Modal, Leverage, Dan Ukuran Perusahaan Terhadap Kinerja Keuangan. . *Jurnal Ekonomi Trisakti*, 2(2), 529-542.
- Hamidi, H. (2019). Analisis Penerapan Green Accounting Terhadap Kinerja Keuangan Perusahaan. *Equilibiria: Jurnal Fakultas Ekonomi*, 6(2).
- Hertal ti, L. (2021). Jurnal l Riset Al kuntal nsi dal n Bisnis. *Jurnal l Riset Al kuntal nsi Dal n Bisnis*, 8(September), 22–47
- Hidayanti, L. (2023). Pengaruh Penerapan Green Accounting Terhadap Financial Performance Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2016-2021: Sebelum Dan Semasa Covid-19 (Doctoral dissertation, STIE Indonesia Banking School).
- Lako, P. D. (2018). *Akuntansi Hijau*. Jakarta Selatan: Salemba Empat. Mabrurroh, M. &. (2022). Pengaruh Green Accounting, Ukuran Perusahaan, Dan Leverage Terhadap Financial Performance Dengan Nilai Perusahaan Sebagai Variabel Moderasi. *Journal of Economic, Bussines and Accounting (COSTING)*, 5(2), 1776- 1778.

Makhdalena, M. (2018). Pengaruh Blockholders Ownership, Firm Size Dan Leverage Terhadap Kinerja Keuangan Perusahaan. *EKUITAS. (Jurnal Ekonomi Dan Keuangan)*, 18 (3), 277–292.

Phillips, R. A., Freeman, R. E., & Wicks, A. C, What stakeholder theory is not, *Business Ethics Quarterly*, 13: 479-502, 2003

Suripto, S. &. Pratiwi, A. (2022). Pengaruh Green Accounting Kinerja Lingkungan dan Ukuran Perusahaan terhadap Financial Performance pada Perusahaan Sektor Energy yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2020. . *Syntax Literate; Jurnal Ilmiah Indonesia*, 7(12), 16497-16513.