

THE INFLUENCE OF LEADERSHIP STYLE, AND GREEN MANAGEMENT ACCOUNTING ON THE SUSTAINABILITY PERFORMANCE OF CATHOLIC UNIVERSITIES IN INDONESIA

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Abstract: Sustainability performance is an issue that has become phenomenal lately in the era of Industrial Revolution 5.0. Not only companies are the object of special attention towards sustainability performance based on profit goals, but non-profit (nonprofit) based organizations also continue to strive to achieve sustainability performance. The Catholic University as one of the non-profit oriented organizations must continue to maintain its performance in order to achieve sustainability performance. The object of research in this study are all Catholic universities in Surabaya and Jakarta. The choice of place is because the two cities are the two largest cities in Indonesia and have the best Catholic universities in Indonesia. Sampling technique in this study using purposive sampling. This type of research is quantitative research with questionnaires through Google Form with a Likert scale of 1-5. The purpose of this study was to analyze and examine the influence of leadership style, and Green Management Accounting on sustainability performance. The specific purpose of this study is to see the role of Green management accounting on the sustainability performance of Catholic universities in Indonesia is maintained in the midst of rapid technological developments in the Industrial Revolution 5.0. The urgency of this research is if the Catholic University in Indonesia has a different level of understanding, Knowledge-Based Leadership Style, Green Management Accounting and Sustainability Performance, specific specifications in this research, more focus on the theme of green Management Accounting and sustainable Accounting Research in terms of the level of leadership style, Green Management Accounting.

Keywords: *Green Management Accounting, Sustainability Performance*

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1. Introduction

The concept of Sustainability Accounting is a concept that becomes a new paradigm in the development of Contemporary Accounting of an organization. The implementation of sustainability accounting has many benefits for both profit and non-profit organizations. One of the largest non-profit organizations and has a wide impact is the University. The university has a far-reaching impact not only on finance, but also on social and environmental impact. By applying the concept of leadership style and Green Management Accounting, the management of a university can connect the University's business strategy with the

University's Sustainability Performance Framework. This process will make a university not only focus on the economic impact, but also consider the social and environmental impact of every business decision made by the company's Management (Adam) [1]. Research from Kaur & Lodhia [13] shows that university stakeholders are very instrumental in achieving sustainability performance.

Ghozali's Research [8] describes the practice of disclosing sustainability performance in public sector organizations, namely universities. The results of his research indicate that the practice of implementing Green Management Accounting can have an impact on the internal business processes of an organization and the sustainability performance of an organization. The research above will provide an understanding of the opportunities for the application of Green management accounting concepts to non-business organizations in Indonesia, especially within the scope of this research university aims to provide a new paradigm that Green management accounting concepts that universities can apply. This concept has now been widely applied, especially at universities with a high commitment to the concept of sustainability. The Catholic University is an organization that strongly implements the accounting system and can be a pioneer in the context of achieving sustainability performance. This research focuses on making guidelines in the implementation of leadership style and Green management accounting for non-business organizations, especially universities. This research is expected to contribute to policies related to the implementation of leadership styles, Green Management Accounting and sustainability performance at Catholic universities in Indonesia. Green accounting in education has an increasing urgency along with increasing global awareness of environmental and sustainability issues including:

1. Encouraging sustainability in campus financial management
2. Meet global regulations and standards
3. Improving the reputation and competitiveness of the University
4. Creating environmental awareness for students
5. Optimize the use of resources
6. Increase transparency and accountability
7. Encourage continuous innovation and research

This study took the object of the largest Catholic University in Indonesia, namely Surabaya and Jakarta. The reasons for the study chose two factors, namely leadership style and Green Management Accounting are (1) leadership style becomes one of the tools used by educational personnel in the implementation of activities to achieve sustainability performance of the University, without a good leadership style, the implementation will not be realized. (2) Green Management Accounting cannot be separated in achieving sustainability performance. Good Green Management Accounting factors can make the performance of a university can be achieved well, so that sustainability performance can be achieved.

Problems under study.

As for the issues studied: Does Leadership Style, Green Management Accounting affect the sustainability performance of Catholic universities in Indonesia?.

Special Purpose Of Research

The specific purpose of this study is to look at the level of leadership styles, as well as Green management accounting, can make the sustainability performance of Catholic

universities can be achieved.

Urgency of Research

The urgency of this study is that all members of the Catholic University community have different levels of implementation of leadership styles, Green Management Accounting. Specific specifications of this study, more focus on the theme of Management Accounting Research.

Research Benefits

1) The practical benefits of this study are as follows :

- a. For the University academic community: provide empirical evidence on the influence of leadership style and Green Management Accounting on University Sustainability Performance and provide input on appropriate policies related to good leadership style and Green management accounting.
- b. For the community and the environment: contribute motivation in the implementation of the implementation of the University Green management accounting for the implementation of the tridarma of higher education, especially community and environmental service.

2) Theoretical benefits of research :

- a. This research is expected to contribute in the development of accounting studies, especially green management accounting regarding the influence of leadership style, green management accounting on sustainability performance
- b. Can be used as a reference for further research for academics and other researchers.

2. Research Method

This study is an explanatory quantitative research because it aims to obtain an explanation of the influence between variables, through hypothesis testing. This study uses a quantitative approach, with the collection of surveys with the spread of questionnaires in the form of questions as a data collection tool to obtain an overview of the variables of the study. While the data used in this study is the primary data that is analyzed directly from the first source. The population of the study were all academics, both campus leaders, rectors and their staff, lecturers, students and all supporting systems at Catholic universities in Indonesia with samples from all cities of Surabaya and Jakarta. The sampling technique of this study is purposive sampling, with samples that have been Representative to a certain amount. Purposive representative sampling was carried out on all university academics, both leaders of Catholic universities, rector, vice rector, chairman of the foundation, lecturers who have special positions at the University, to educational personnel with positions, who so far have experience and qualified education. All academic communities are registered at PPDikti in Indonesia, especially Surabaya and Jakarta. The reason for using it is because the Catholic University in Indonesia as the largest contributor to the Tridarma of Higher Education for Indonesia and of course the economic, social and environmental aspects including it. The technique of calculating the amount of data is slovin formula, selected the number of academic community members surveyed amounted to at least 100 respondents in this study and the period of time to obtain data for 1-2 months.

Operational definition is a specification of research activities in measuring a variable, in this study can be explained as follows:

Leadership Styles

Table 1. Leadership Style Question Items

Number	Items of Question
1	My university leaders have a clear vision and mission regarding future sustainability performance
2	My university leaders inspire me to implement good environmental management in the campus environment
3	My university leaders promote innovation and creativity in the application of eco-green within the scope of the campus.
4	My university leaders expressed appreciation or appreciation for our work from ESG-related teaching, research and community service.
5	My university leaders provide clear direction in every program related to the college's ESG-related tridarma goals

Green Management Accounting

An accounting approach that integrates environmental aspects into the University's management process. This approach involves the identification, measurement, analysis, and reporting of financial and non-financial information related to environmental activities. The development of Green Management Accounting instruments appear in Table 2:

Table 2. Leadership Style Question Items

Number	Items of Questions
1	My university identifies well any costs incurred for social and environmental responsibility in terms of tridarma perguruan tinggi.
2	My university has a special procedure for recording any environmental management fees
3	My university measures the impact of ESG committed to the college Tridarma of teaching, research and service
4	The Data my university provides is transparent and accessible to all stakeholders
5	Every decision my university makes actively considers its impact on economic, social and environmental sustainability
6	My university has policies to reduce carbon footprint through greener business practices

Sustainability Performance

A measure or evaluation of the extent to which a university can successfully achieve its sustainability goals covering economic, social and environmental aspects in a balanced manner. Sustainability performance reflects the University's ability to create long-term value while minimizing negative impacts on ecosystems and communities. Sustainability Performance question items appear in Table 3 :

Table 3. Sustainability Performance Question Items

Number	Items of Questions
1	My university has a financial management strategy that supports sustainability programs
2	My university budget includes allocations for college tridarma related programs in terms of ESG
3	My university implements effective waste management policies such as recycling and waste reduction

4	My university is renewable energy or has energy consumption reduction initiatives.
5	My university makes a real contribution to the community through community service programs such as scholarships or support for underprivileged people, campus health programs and training and workshops

Data Analysis Techniques

Multiple linear regression analysis is used to test research models, assumptions, feasibility models, and hypothesis testing. Hypothesis test in this study will be tested using linear regression analysis is an analysis used to determine the extent to which the influence of leadership style, and Green Management Accounting as an independent variable on the performance of sustainability as a dependent variable. To test hypotheses on leadership styles, and Green Management Accounting, influence on the sustainability performance of Catholic universities in Indonesia.

The regression equation Model used is:

$$KKK = A + B1GK + B2AMH + e$$

Description :

KK : Sustainability performance of Catholic universities in Indonesia

GK: Leadership Style

AMH: Green Management Accounting

A: Constant.

B: Regression Coefficient.

E : Error.

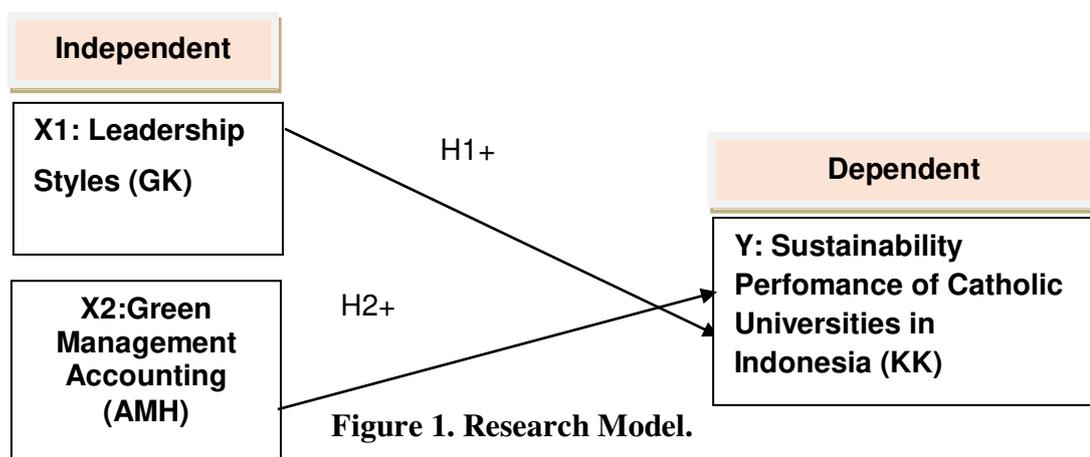


Figure 1. Research Model.

3. Result and Discussion

3.1. Results

Respondent Description

This study involved as many as 110 respondents from the academic community of Catholic universities in Surabaya and Jakarta, consisting of the rectorate, lecturers, and education personnel. The composition of respondents is shown in Table 4 regarding the composition of the following respondents:

Table 4. Respondent Description

Position	Number	Percentage
University Leaders	20	18,2%
Lectures	60	54,5%
Education Staff	30	27,3%
Total	110	100%

Sources: Data Processing (2025)

Descriptive Statistics

Descriptive statistics are used to see the tendency of respondents' answers to each variable.

Table 5. Descriptive Statistics

Variable	Number of Items	Minimum	Maximum	Average	Standard Deviation
Leadership Styles (GK)	5	2,80	5,00	4,21	0,56
Green Management Accounting (AMH)	6	2,50	5,00	4,02	0,61
Sustainability Performance (KK)	5	2,60	5,00	4,11	0,59

Sources: Data Processing (2025)

Description:

1. A Likert scale of 1-5 is used on all items.
2. The minimum and maximum values indicate a relatively narrow distribution of data, meaning that the majority of respondents answered in the range of 3-5 (positive).
3. A standard deviation below 1 indicates a fairly low variation in answers, indicating consistency of perception among respondents.

Classical Assumption Test

Normality, multicollinearity, heteroscedasticity, and autocorrelation tests have been performed, and all assumptions of classical linear regression are met.

Leadership style (GK)

The average value of the leadership style variable was 4.21 with a standard deviation of 0.56, indicating that the majority of respondents agreed that the leadership of the Catholic University has implemented sustainability-oriented leadership.

Green Management Accounting (AMH)

The average AMH variable score was 4.02 with a standard deviation of 0.61, indicating that the application of green Management Accounting is in the good category, although there is room for improvement in the aspects of ESG reporting and carbon footprint reduction.

Sustainability performance (KK)

The average for sustainability performance variables is 4.11 and the standard deviation is 0.59, indicating that the Catholic University has successfully balanced economic, social, and

environmental aspects.

Classical Assumption Test

Normality, multicollinearity, heteroscedasticity, and autocorrelation were tested, and all assumptions of classical linear regression were met. Detailed results are available in Table 6 onwards

Normality Test

Normality test using Kolmogorov-Smirnov test (K-S). The results are as follows:

Table 6. Results Of The Normality Test

Statistics Test	Asymp. Sig. (2-tailed)	Descriptions
0,085	0,200	Normally distributed Data

Source: Data Processing (2025)

Note: Due to the value of GIS. > 0.05 then the data is declared normal.

Multicollinearity Test

Multicollinearity test using Tolerance value and VIF (Variance Inflation Factor):

Table 7. Multicollinearity Test Results

Independent Variable	Tolerance	VIF	Descriptions
Leadership Styles (GK)	0,712	1,404	There is no multicollinearity
Green Management Accounting (AMH)	0,712	1,404	There is no multicollinearity

Note: Due to Tolerance > 0.10 and VIF < 10, multicollinearity does not occur.

Heteroscedasticity Test

Heteroscedasticity test using Glacier test, the results are as follows:

Table 8. Heteroscedasticity Test Results (Glacier Test)

Independent Variable	Sig. (p-value)	Descriptions
Leadership Styles (GK)	0,312	There is no multicollinearity
Green Management Accounting (AMH)	0,223	There is no multicollinearity

Note: Due to the value of GIS. > 0.05, then there are no symptoms of heteroscedasticity.

Autocorrelation Test

Autocorrelation test using Durbin-Watson Test (DW):

Table 9. Autocorrelation Test Results

DW	dL	dU	Conclusion
1,874	1,598	1,721	There is no autocorrelation

Note: since DW is between dU and 4-dU, there is no autocorrelation.

Results of Multiple Linear Regression Analysis

Coefficient Of Determination (R2)

Table 10. R-Square Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	0,805	0,647	0,639	0,328
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Note: This means that 64.7% of the variation in sustainability performance can be explained by Green Leadership and Management Accounting Styles. The rest (35.3%) is explained by other factors.

F Test (Simultaneous)

Table 11. F-Test

Model	F	Sig.
1	47,82	0,000

Note: Due to the value of GIS. < 0.05, then the regression model is simultaneously significant.

T-Test (Partial)

Table 12. T Test Results

Independent Variable	β	t-calculate	Sig. (p)	Note
Leadership Styles (GK)	0,452	4,893	0,000	Significant (H1 accepted)
Green Management Accounting (AMH)	0,377	4,021	0,000	Significant (H2 accepted)

Sources: Data Processing (2025)

Table 13. Regression Test

Independent Variable	Coefficient Regression (β)	t-Calculate	Sig. (p)
Constanta	1,132	3,412	0,001
Leadership Styles (GK)	0,452	4,893	0,000
Green Management Accounting (AMH)	0,377	4,021	0,000
R²	0,647		
F-hitung	47,82		

The multiple linear regression equation based on the above results is:

$$KKK = 1.132 + 0.452 (GK) + 0.377 (AMH)$$

Meaning:

1. Each increase of 1 unit of leadership style increases Sustainability Performance by 0.452 points, if other variables are constant.
2. Each increase of 1 Green Management Accounting unit increases Sustainability Performance by 0.377 points, if other variables are constant.

3.2. Discussion

Influence of leadership style on sustainability performance

Based on the results of the analysis, leadership style has a positive and significant effect on the performance of sustainability ($\beta = 0.452$; $p < 0.05$). This shows that leadership that is inspiring, visionary, and encourages innovation in ESG management, is able to increase the University's contribution to sustainability. These results are in line with research from Kaur & Lodhia [13] which states that leadership involvement in sustainability will improve the

quality of ESG-based decision making.

Effect of Green Management Accounting on sustainability performance

Green Management Accounting also has a significant effect on the performance of sustainability ($\beta = 0.377$; $p < 0.05$). This shows that environmental cost management, ESG reporting transparency, and ecological impact reduction policies have a direct impact on the success of an institution's sustainability.

These results support the findings of Hotmauli & Etty [12] which states that green accounting is one of the foundations in achieving sustainable development in educational organizations.

4. Conclusion

Based on the results of research on the influence of leadership style and Green Management Accounting on sustainability performance at Catholic universities in Indonesia, the following conclusions can be drawn:

- 1) Leadership style has a positive and significant effect on sustainability performance.
This means that the better the leadership style applied by university leaders — such as inspirational, visionary, and pro-environment — the higher the level of University sustainability performance in economic, social, and environmental aspects.
- 2) Green Management Accounting also has a positive and significant effect on sustainable performance.
- 3) This shows that the higher the adoption of accounting practices that consider environmental aspects (such as recording ESG costs, transparent reporting, and resource efficiency), the more optimal the University's contribution to sustainable development.
- 4) The regression Model used showed an R Square value of 0.647, which means that the variables of leadership style and Green Management Accounting simultaneously explain 64.7% of the variability of the sustainability performance of Catholic universities in Indonesia.

Research Suggestions

Based on the findings and limitations of the study, here are some suggestions that can be given:

Practical Advice

1. For The Leadership Of The Catholic University
Strengthening ESG-oriented leadership training is needed as well as fostering an organizational culture that integrates sustainability into strategic decision-making.
2. The Finance and Environmental Management Department of the University
It is recommended to develop a more integrated green management accounting system, with clear indicators of sustainability performance measurement and can be monitored periodically.
3. For The Academic Community
Encourage collective awareness of social and environmental responsibility through programs of teaching, research, and community service oriented to sustainability.

Suggestions for future research

1. Addition Of Other Variables
Future research may consider other variables such as green organizational culture, top management commitment, or external stakeholder engagement in influencing

- sustainability performance.
2. Expansion Of The Object Of Research
This study was only limited to Catholic universities in Surabaya and Jakarta. To obtain a more representative picture, it is recommended that coverage be extended to other cities in Indonesia.
 3. Use Of Mixed Methods
Further research may consider qualitative approaches (e.g. in-depth interviews) as a complement to quantitative data to gain a deeper understanding of the dynamics of sustainability in universities.

Implications

Practical Implications

These findings indicate that Catholic universities in Indonesia that want to improve sustainability performance need:

1. Strengthening ESG-led leadership training
2. Improving accountability in reporting on environmentally friendly activities
3. Integrating green accounting principles into university financial policy

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