Green Accounting for a Sustainable Future: University Social Responsibility at STIE Pancasetia

Ros Nirwana[1*], Reny Marliadi[2], Rahmatullah Alfikri[3], Rahmi Nadiar[4], Mutmainah[5]

[1] Akuntansi, Sekolah Tinggi Ilmu Ekonomi Pancasetia, Banjarbaru & Indonesia
[2] Universitas Borneo Lestari, Banjarbaru & Indonesia
[3,4] Politeknik Negeri Tanah laut, Tanah laut & Indonesia
[5] Universitas Lambung Mangkurat, Banjarmasin & Indonesia

*Email Correspondence: rosnirwana@stiepancasetia.ac.id

Abstract

Purpose: This research aims to examine environmental sustainability at STIE Pancasetia Banjarbaru by investigating environmental awareness, environmental involvement, environmental reporting, and environmental audit within the community.

Methodology: This study adopts an innovative Mixed Methods approach, combining quantitative analysis using Chi Square tests with in-depth qualitative analysis of interview results. With a sample of 92 respondents from lecturers, staff, and students at STIE Pancasetia, this research collects data through questionnaires and interviews to present a comprehensive picture of the phenomenon under investigation.

Research Findings: This research indicates a significant correlation between environmental awareness, involvement, and environmentally friendly behavior and management at STIE Pancasetia, supported by a Chi Square probability value of $0.000 < \alpha\ 0.05$. Nevertheless, environmental reporting and auditing require improvement, as 55.6% of respondents perceive reporting as adequate but insufficient in environmental impact disclosure, and 55.6% consider auditing ineffective. Hence, enhancing competence and developing reporting and auditing systems is crucial for improving transparency and accountability.

Contribution: To achieve environmental sustainability, it is recommended to: enhance environmental awareness and involvement through targeted programs, integrate Green Accounting based on University Social Responsibility (USR) into education, research, and community service activities, and improve transparency and accountability in environmental reporting and auditing through accurate and effective systems.

Abstrak

Tujuan Penelitian: Penelitian ini bertujuan untuk meneliti keberlanjutan lingkungan di STIE Pancasetia Banjarbaru melalui investigasi kesadaran lingkungan, keterlibatan lingkungan, Pelaporan lingkungan, dan audit lingkungan di kalangan komunitas.

Metodologi: Penelitian ini mengadopsi pendekatan Mixed Methods yang inovatif, memadukan analisis kuantitatif dengan uji Chi Square dan analisis kualitatif mendalam dari hasil wawancara. Dengan sampel sebanyak 92 responden dari dosen, staf, dan mahasiswa STIE Pancasetia, penelitian ini mengumpulkan data melalui kuesioner dan wawancara untuk menyajikan gambaran komprehensif tentang fenomena yang diteliti.

Temuan Penelitian: Penelitian ini menunjukkan bahwa kesadaran dan

keterlibatan lingkungan di STIE Pancasetia memiliki hubungan signifikan dengan perilaku ramah lingkungan dan pengelolaan lingkungan, dengan nilai probabilitas Chi Square 0,000 < α 0,05. Namun, pelaporan dan audit lingkungan masih memiliki kekurangan, dengan 55,6% responden menilai pelaporan sudah baik namun kurang dalam pengungkapan dampak lingkungan, dan 55,6% menilai audit lingkungan belum efektif. Oleh karena itu, diperlukan peningkatan kompetensi dan pengembangan sistem pelaporan dan audit lingkungan untuk meningkatkan transparansi dan akuntabilitas.

Kontribusi: Untuk mencapai keberlanjutan lingkungan, direkomendasikan untuk meningkatkan kesadaran dan keterlibatan lingkungan melalui program yang ditargetkan, mengintegrasikan Akuntansi Hijau berbasis Tanggung Jawab Sosial Universitas (USR) ke dalam kegiatan pendidikan, penelitian, dan pengabdian kepada masyarakat, serta meningkatkan transparansi dan akuntabilitas dalam pelaporan dan audit lingkungan melalui sistem yang akurat dan efektif.

INTRODUCTION

Green accounting is an accounting approach that incorporates environmental costs, benefits, and impacts into the financial reporting system. This method involves identifying, measuring, and recording environmental costs, enabling companies to integrate ecological responsibility into their business performance (Purnomo et al., 2021). The objective is to enhance transparency, accountability, and support more sustainable decision-making. Although its implementation has largely remained voluntary, standardization efforts and approaches such as Material Flow Cost Accounting continue to be developed to encourage broader adoption (Jasch, 2019; Yasrawan & Werastuti, 2022).

Green accounting has gained significant traction in Indonesia in recent years, moving beyond its origins to become a practical tool for sustainability reporting and corporate environmental responsibility. Recent studies define green accounting as a systematic integration of environmental costs, such as waste processing and resource use, into financial accounting systems (Dunakhir, Kusumawardhani, & Suryani, 2024). This approach enhances transparency and accountability in annual reports, supporting more informed and sustainable decision-making. Although still largely voluntary, companies are increasingly adopting systematic methods like material flow cost accounting (MFCA) and structured environmental disclosures to encourage broader organizational implementation.

Green accounting comprises four essential components: environmental costs (e.g., environmental costing), environmental benefits (via resource-efficiency accounting), environmental performance, and environmental reporting (including lifecycle cost analysis and sustainability disclosure). Implementing green accounting offers key benefits such as heightened environmental awareness, reduced environmental risks, increased resource efficiency, and an enhanced corporate image. It operates within holistic frameworks such as Socio-Economic Environmental Accounting or the Triple Bottom Line, integrating economic, environmental, and social performance for a comprehensive vision of sustainability (Cahyaningrum, Wardana, & Hwihanus, 2024; Green accounting practices: A pathway to sustainable business growth, 2024; Ambarsari, Ambarwati, & Hwihanus, 2024).

The implementation of Green Accounting based on Corporate Social Responsibility (CSR) is growing in Indonesia, with relevant regulations such as PP No. 45 of 2019 (Amendment to PP No. 47 of 2012) and Minister of Finance Regulation No. 124 of 2024. Additionally, there are relevant accounting standards, such as Financial Accounting Standards (SAK) and Sustainable

R. Nirwana, R. Marliadi, R. Alfikri, R. Nadiar, Mutmainah

Financial Reporting Standards (SPKB), as well as International Accounting Standards (IAS/IFRS) that cover environmental and social aspects in financial reporting.

University Social Responsibility (USR) is the social and environmental responsibility that must be implemented by higher education institutions to achieve sustainable educational goals. Regulations related to USR in Indonesia include PP No. 45 of 2019 (Amendment to PP No. 47 of 2012) and Minister of Finance Regulation No. 124 of 2024. Implementing USR can improve institutional reputation, build good relationships with the community, and support sustainable development.

Higher education institutions in South Kalimantan, such as Lambung Mangkurat University (ULM) and Antasari State Islamic University (UIN Antasari), have implemented University Social Responsibility (USR) through community service programs and green campus development. USR has four essential components: environmental awareness, environmental involvement, environmental reporting, and environmental audit, which are regulated by laws and regulations such as PP No. 45 of 2019 (Amendment to PP No. 47 of 2012) and Minister of Finance Regulation No. 124 of 2024.

STIE Pancasetia Banjarbaru, as one of the higher education institutions in South Kalimantan, has experienced significant growth in the number of students. However, this growth has the potential to cause significant environmental impacts. Therefore, it is essential for STIE Pancasetia to consider and address the environmental impacts resulting from its operations.

Although prior studies have explored the intersection of Green Accounting and University Social Responsibility (USR), much of this work has focused on industry rather than higher education institutions. For example, Suhartini, Widoretno, and Azmiyanti (2024) investigated the application of green accounting within universities through a USR framework, while Dunakhir, Kusumawardhani, and Suryani (2024) examined its systematic integration into financial systems. Despite these contributions, limited research specifically addresses how USR-based Green Accounting is implemented in college settings. Therefore, this study aims to analyze the implementation of Green Accounting rooted in USR principles at STIE Pancasetia Banjarbaru.

LITERATURE REVIEW
Social Responsibility Theory

According to the World Business Council for Sustainable Development (WBCSD), the Corporate Social Responsibility (CSR) theory focuses on sustainability and balance between economic, social, and environmental aspects. The CSR principles include leadership and commitment, transparency and accountability, collaboration and partnership, capacity development, and measurement and evaluation of CSR performance to ensure companies operate responsibly and sustainably.

The World Business Council for Sustainable Development (WBCSD) highlights that Corporate Social Responsibility (CSR) offers various benefits, including economic benefits such as increased profits and efficiency, social benefits like improving the quality of life of communities and promoting human rights, and environmental benefits such as reducing environmental impacts and conserving natural resources, thereby enhancing sustainability and reducing greenhouse gas emissions.

Agency Theory

Agency theory explains the relationship between principals (owners) and agents (managers), where agents are entrusted to act on behalf of principals. This relationship can lead to conflicts of

interest when agents prioritize their own goals over those of the owners, as reaffirmed in a recent update to earlier works by Agrawal and Knoeber, revised by Pratama and Nugroho (2023). A systematic literature review by Setiawan et al. (2024) highlights that agency theory remains a dominant framework in corporate financial reporting research, emphasizing its role in explaining agency costs and encouraging voluntary disclosure to reduce information asymmetry. Furthermore, research by Lestari (2022) notes that agency theory underpins the adoption of comprehensive reporting standards and the strengthening of board oversight to enhance transparency and accountability.

In the context of Green Accounting based on University Social Responsibility, agency theory can explain how university leaders (agents) are accountable to stakeholders (principals) in managing and reporting environmental performance, ensuring environmental transparency and accountability.

Green Accounting

Green Accounting is an accounting approach that integrates environmental, social, and economic factors into financial reporting. Recent studies highlight that it assesses the environmental and social impacts of corporate activities as part of sustainability reporting (Sari & Pratama, 2023; Putri et al., 2022). The International Federation of Accountants [IFAC] (2021) emphasizes that Green Accounting enables organizations to measure and disclose these impacts systematically. Moreover, Nugroho and Lestari (2024) note that monitoring and reporting on a company's environmental footprint enhances transparency and supports holistic business performance evaluation.

The characteristics of Green Accounting, as highlighted by recent scholars, share similarities in integrating environmental factors into financial reporting, measuring environmental impact, and enhancing transparency and accountability. According to Sari and Pratama (2023) and Nugroho and Lestari (2024), while both emphasize sustainability, Sari and Pratama focus on the Triple Bottom Line (TBL) and environmental performance indicators, whereas Nugroho and Lestari highlight the alignment of business strategy with stakeholder interests.

Green Accounting indicators can be classified into four major categories: Environmental (such as emissions, energy consumption, water use, waste, and biodiversity); Social (including occupational health and safety, employee training, job satisfaction, and human rights); Economic (covering environmental costs, revenue from eco-products, and investment in eco-technologies); and Specific indicators (such as disclosures of environmentally friendly products, sustainability strategies, and environmental performance) (Green accounting practices: A pathway to sustainable business growth, 2024; Al Frijat et al., 2025).

Regulations related to Green Accounting include international standards such as GRI, SASB, IIRC, ISO 26000, and ISO 14001. In Indonesia, relevant regulations include PP No. 45 of 2019 (Amendment to PP No. 47 of 2012), Minister of Finance Regulation No. 124 of 2024, Bank Indonesia regulations, OJK regulations, and Minister of Environment and Forestry regulations. Additionally, there are other international regulations, such as the Dodd-Frank Act and the EU's Non-Financial Reporting Directive.

University Social Responsibility

University Social Responsibility (USR) is a university's commitment to contributing to society and the environment through education, research, and community service. According to experts, USR involves integrating social and environmental values into academic and operational activities, as well as a responsibility to improve societal well-being and the environment. This definition is

supported by the European University Association (2018), UNESCO (2019), Hollister (2017), Cruz (2018), and Sutrisno (2019).

The dimensions of University Social Responsibility (USR) according to Sutrisno (2019) consist of three main categories: the Main Dimension, which includes Education, Research, Community Service, and Management; the Supporting Dimension, which encompasses Partnership, Social Awareness, Human Resource Development, and Environmental Management; and the Strategic Dimension, which includes Strategic Planning, Performance Measurement, Communication and Transparency, and Cultural Development.

Green Accounting Bassed on University Social Responsibility

University Social Responsibility-Based Green Accounting has 4 main components according to the GRI (2020), namely: Environmental Awareness, Environmental Involvement, Environmental Reporting, and Environmental Audit, which aim to build an environmentally conscious and socially responsible university.

Environmental awareness involves understanding the importance of preserving nature and recognizing human impacts on the environment. Modern research identifies its core components as knowledge, attitude, behavior, and participation (TIMSS & PIRLS International Study Center, 2023; Rahman & Chen, 2023). Influential factors include education, media exposure, family and community engagement, personal experiences, and government policy (Rahman & Chen, 2023). Benefits associated with heightened environmental awareness include increased ecological concern, reduced pollution, improved quality of life, the promotion of a green economy, and the fostering of a more sustainable society (Rahman & Chen, 2023; Bashir & Kim, 2024).

Environmental involvement refers to the active engagement of individuals, organizations, or communities in conservation and environmental management efforts. Its core characteristics include long-term commitment, active participation, environmental awareness, social responsibility, and multi-stakeholder collaboration (Adewole & Olukorede, 2025; Global Sustainability research, 2023). This involvement is guided by sustainability principles such as justice, participation, and transparency and focuses on natural resource management, ecosystem conservation, emission reduction, environmental education, and eco-friendly technological innovation (Adewole & Olukorede, 2025; Community-Based Climate Action study, 2023).

Environmental reporting is the process of communicating information about environmental management performance to various stakeholders. According to experts such as GRI (2020), SASB (2020), IIRC (2020), and UNEP (2020), environmental reporting aims to increase transparency and accountability, reduce environmental impact, and comply with environmental regulations. The components of environmental reporting include environmental performance, environmental impact, natural resource usage, greenhouse gas emissions, waste management, and environmental compliance. Environmental reporting standards are based on GRI, SASB, IIRC, ISO 14001, and ISO 26000.

An environmental audit is a systematic and objective assessment of an organization's environmental performance, aiming to ensure regulatory compliance, identify risks, and evaluate operational impacts on the environment. Effective environmental audits enhance performance, reduce environmental risks, improve efficiency and productivity, bolster organizational reputation, and ensure compliance (Luciano et al., 2024; ERM, 2025). Key components include environmental performance evaluation, risk identification, impact assessment, evaluation of the environmental management system, and monitoring regulatory compliance (Luciano et al., 2024; Safety Management Group, 2024).

This study analyzes the implementation of Green Accounting based on University Social Responsibility at STIE Pancasetia using Agency Theory, focusing on four indicators: Environmental Awareness, Environmental Involvement, Environmental Reporting, and Environmental Audit. This study employs a mixed-method approach, collecting quantitative data through questionnaires and qualitative data through open-ended interviews. The results are expected to provide an overview of Green Accounting implementation, identify environmental awareness, and offer recommendations to enhance implementation and environmental policies at STIE Pancasetia.
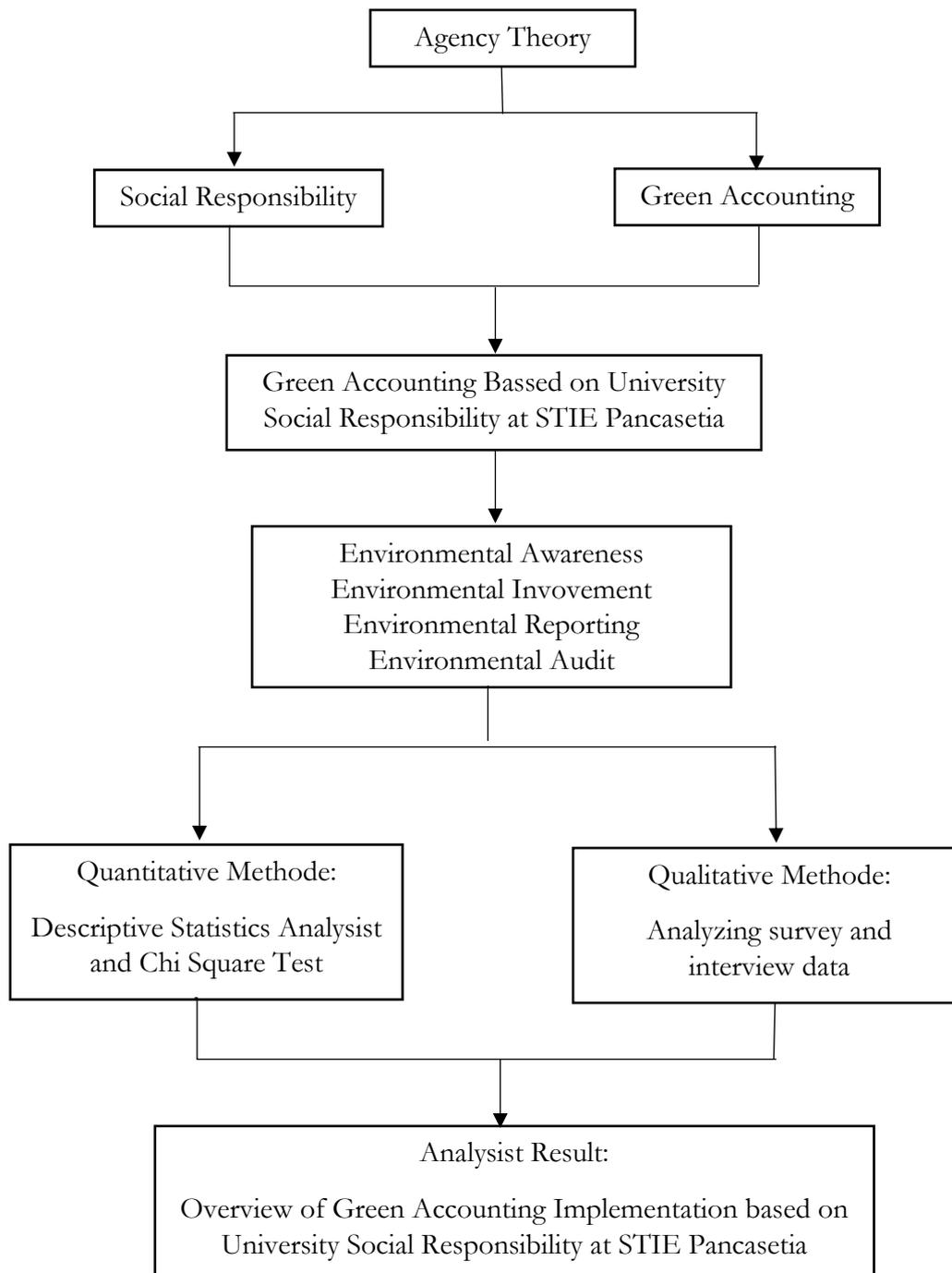

Figure 1. Conceptual Framework

RESEARCH METHODS

The research method used in this study is a mixed-methods approach, combining quantitative and qualitative research types. According to Oranga et al. (2025), mixed-methods research integrates both quantitative and qualitative data collection within a single study, offering a more comprehensive understanding of complex phenomena. This dual approach allows researchers to harness the strengths of both quantitative descriptive statistics and chi-square analysis as well as qualitative surveys and in-depth interviews. By blending these methods, the study aims to provide a fuller and more accurate depiction of the phenomenon under investigation (Oranga et al., 2025; Lall et al., 2021).

This study employs a mixed-methods approach, integrating both quantitative and qualitative methods (Qu, Shi, Yu, & Bao, 2025). Quantitative data were collected through online questionnaires distributed to students, lecturers, staff, and foundation administrators of STIE Pancasetia. A total of 92 respondents participated for the environmental awareness variable, consisting of 40 lecturers, 45 students, and 7 staff members. This variable was measured through two elements: environmental knowledge and environmentally friendly behavior, which could be understood and answered by all respondent groups.

For the environmental involvement variable, responses were obtained from 35 participants, comprising lecturers and staff members. This variable included elements of renewable energy utilization, natural resource management, and the implementation of the Tri Dharma of Higher Education as part of University Social Responsibility. These elements required knowledge of campus infrastructure and institutional activities that are not accessible to students.

The Tri Dharma of Higher Education indicators within the environmental involvement variable are based on the legal mandate in Law No. 12 of 2012 on Higher Education, which requires the implementation of education, research, and community service. These pillars directly support environmental engagement. The education pillar allows universities to integrate sustainability values into curricula and learning activities, fostering awareness among the academic community (Urbaniak et al., 2024). The research pillar can generate eco-friendly innovations and sustainable resource management strategies (Torres et al., 2023). The community service pillar enables direct involvement in conservation, public education, and local environmental problem-solving (Mafongosi et al., 2024). Thus, integrating Tri Dharma indicators reflects a legally grounded and conceptually relevant form of environmental involvement, aligned with Education for Sustainable Development and University Social Responsibility.

Meanwhile, the environmental reporting and environmental audit variables were completed by 9 respondents consisting of foundation staff and the leadership of STIE Pancasetia. The environmental reporting variable was measured through elements of reporting scope, environmental impact disclosure, stakeholder engagement, and environmental reporting standards. The environmental audit variable was measured through audit scope, environmental impact identification, and environmental compliance evaluation. These two variables involve internal documentation and processes that are not publicly accessible to the wider campus community.

Quantitative data were analyzed using descriptive statistical analysis and chi-square tests. The qualitative component was based on respondents' answers to open-ended questions in the questionnaire. This study adopted a nested sampling strategy, in which the qualitative sample was drawn from the larger quantitative sample, with the qualitative sample size determined by the depth and richness of the data rather than a predetermined number (Qu et al., 2025).

RESULTS AND DISCUSSION
Quantitative Analysist

1. **Deskriptif Statistik**

Table 1. Deskriptif Statistic (Environmental Awareness and Environmental Involement)

Variabel	Indicator	Questions	N	Min	Max	Mean	Std. Deviation
Environmental Awareness	Environmental Knowledge	P1_X1	92	2,00	5,00	3,9348	0,79565
		P2_X1	92	3,00	5,00	4,2065	0,73437
		P3_X1	92	2,00	5,00	4,0109	0,79136
		P4_X1	92	2,00	5,00	3,8370	0,81574
		P5_X1	92	1,00	5,00	3,5217	0,90758
		P6_X1	92	2,00	5,00	4,1522	0,72529
		P7_X1	92	1,00	5,00	3,0435	0,95977
		P8_X1	92	1,00	5,00	3,7609	0,95353
		P9_X1	92	1,00	5,00	3,6413	0,94441
		P10_X1	92	2,00	5,00	4,2174	0,79595
	Environmentally Friendly	P11_X1	92	3,00	5,00	4,4783	0,63727
		P12_X1	92	3,00	5,00	4,6087	0,55384
		P13_X1	92	1,00	5,00	3,0217	1,03752
		P14_X1	92	1,00	5,00	4,0870	0,82078
		P15_X1	92	3,00	5,00	4,7500	0,48324
		P16_X1	92	2,00	5,00	4,0543	0,78955
		P17_X1	92	1,00	5,00	3,3152	0,94844
		P18_X1	92	2,00	5,00	3,9891	0,84508
		P19_X1	92	2,00	5,00	3,8913	0,87022
		P20_X1	92	2,00	5,00	4,0870	0,79355
		Total	92	55,00	100,00	78,6087	10,65540
Environmental Involement	Renewable Energy	P1_X2	35	2,00	5,00	3,8000	0,83314
		P2_X2	35	3,00	5,00	4,1714	0,78537
		P3_X2	35	2,00	5,00	3,8000	0,79705
		P4_X2	35	3,00	5,00	4,2571	0,61083
		P5_X2	35	2,00	5,00	3,6286	0,68966
	Natural Resources	P6_X2	35	2,00	5,00	3,6857	0,79600
		P7_X2	34	2,00	5,00	3,5000	0,78817
		P8_X2	35	2,00	5,00	3,5429	0,81684
		P9_X2	35	2,00	5,00	3,8857	0,86675
		P10_X2	35	1,00	4,00	3,2571	0,78000
		P11_X2	35	2,00	5,00	3,8857	0,75815
		P12_X2	35	3,00	5,00	4,0571	0,76477
		P13_X2	35	1,00	5,00	3,3429	0,96841
	Tri Dharma of Higher Education	P14_X2	35	1,00	5,00	3,3714	1,00252
		P15_X2	35	1,00	5,00	3,4857	1,01087
		P16_X2	35	1,00	5,00	3,5714	0,91670
		P17_X2	35	2,00	5,00	3,8000	0,79705
		Total	35	39,00	80,00	62,9429	10,24966

Source: Data processed by the researcher using SPSS 25 in 2025

Descriptive statistics from 92 samples show that respondents' answers ranged from 1-3 (minimum) to 4-5 (maximum), with mean scores between 3-4, indicating neutral to agreeable responses. The standard deviation is less than the mean, suggesting low data dispersion.

Table 2. Deskriptif Statistic (Environmental Reporting and Environmental Audit)

Variabel	Indicator	Questions	N	Min	Max	Mean	Std. Deviation
Environmental Reporting	Reporting Scope	P1_X3	9	1,00	4,00	2,8889	1,45297
		P2_X3	9	1,00	5,00	3,0000	1,58114
		P3_X3	9	1,00	5,00	2,8889	1,61589
		P4_X3	9	1,00	5,00	3,1111	1,61589
		P5_X3	9	1,00	5,00	3,4444	1,50923
	Environmental Impact Disclosure	P6_X3	9	1,00	4,00	2,4444	1,23603
		P7_X3	9	1,00	4,00	2,6667	1,32288
		P8_X3	9	1,00	5,00	2,7778	1,48137
		P9_X3	9	1,00	5,00	2,8889	1,53659
		P10_X3	9	1,00	5,00	3,7778	1,30171
	Stakeholder Engagement	P11_X3	9	1,00	4,00	3,0000	1,50000
		P12_X3	9	1,00	4,00	2,8889	1,45297
		P13_X3	9	1,00	4,00	2,8889	1,45297
		P14_X3	9	1,00	5,00	3,0000	1,58114
		P15_X3	9	1,00	5,00	3,1111	1,61589
	Environmental Reporting Standards	P16_X3	9	1,00	5,00	3,0000	1,58114
		P17_X3	9	1,00	5,00	2,8889	1,53659
		P18_X3	9	1,00	4,00	2,8889	1,45297
		P19_X3	9	1,00	5,00	3,1111	1,69148
		P20_X3	9	1,00	5,00	2,8889	1,53659
		Total	9	20,00	93,00	59,5556	28,41263
Environmental Audit	Audit Scope	P1_X4	9	1,00	4,00	2,7778	1,39443
		P2_X4	9	1,00	4,00	2,6667	1,32288
		P3_X4	9	1,00	4,00	2,7778	1,39443
		P4_X4	9	1,00	4,00	2,6667	1,32288
		P5_X4	9	1,00	5,00	2,8889	1,53659
	Environmental Impact Identification	P6_X4	9	1,00	5,00	3,4444	1,50923
		P7_X4	9	1,00	5,00	3,2222	1,39443
		P8_X4	9	1,00	5,00	3,2222	1,39443
		P9_X4	9	1,00	5,00	3,1111	1,36423
		P10_X4	9	1,00	5,00	3,2222	1,39443
	Environmental Compliance Evaluation	P11_X4	9	1,00	4,00	2,8889	1,45297
		P12_X4	9	1,00	5,00	3,0000	1,58114
		P13_X4	9	1,00	4,00	2,8889	1,45297
		P14_X4	9	1,00	4,00	2,7778	1,39443
		P15_X4	9	1,00	4,00	2,7778	1,39443
		Total	9	15,00	66,00	44,3333	19,92486

Source: Data processed by the researcher using SPSS 25 in 2025

Data from 9 samples shows a minimum score of 1 and a maximum score of 4-5, with a mean of 2-3, indicating that respondents provided answers ranging from poor to fair. The standard

deviation being less than the mean value indicates low data dispersion and no outliers, suggesting that the sample is relatively homogeneous

Table 3. Percentage Frequency of Environmental Reporting

	Scope of Reporting	Environmental Impact Disclosure	Stakeholder Engagement	Reporting Standards
Good	55,60%	11,10%	55,60%	33,30%
Enough	11,10%	55,60%	11,10%	33,30%
Less	33,30%	33,30%	33,30%	33,40%

Source: Data processed by the researcher using SPSS 25 in 2025

Environmental reporting variables indicate good reporting coverage (55.6%), fair environmental impact disclosure (55.6%), good stakeholder engagement (55.6%), and evenly distributed ratings for reporting standards

Table 4. Percentage Frequency of Environmental Audit

	Scope of Audit	Audit Findings	Compliance Evaluation
Good	0%	11,1%	0%
Enough	44,4%	44,4%	44,4%
Less	55,6%	44,4%	55,6%

Source: Data processed by the researcher using SPSS 25 in 2025

Based on the table, the Environmental Audit variable shows that audit coverage is rated fair by 44.4% and poor by 55.6%, audit findings are rated good by 11.1%, fair by 44.4%, and poor by 44.4%, and compliance evaluation is rated fair by 44.4% and poor by 55.6%.

2. Chi Square Test

Table 5. Chi-Square Tests (Environmental Awareness)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.026[a]	4	.000
Likelihood Ratio	21.677	4	.000
Linear-by-Linear Association	18.636	1	.000
N of Valid Cases	92		
a. 5 cells (55,6%) have expected count less than 5. The minimum expected count is ,03.			

Source: Data processed by the researcher using SPSS 25 in 2025

Based on the table, it is evident that the Asymp Sig value of 0.000 is less than $\alpha = 0.05$. Therefore, there is a significant relationship between Environmental Knowledge and Environmentally Friendly Behavior. Here is the tabulation of Environmental Knowledge Level vs Environmentally Friendly Behavior.

Table 6. Environmental Knowledge Level * Environmentally Friendly Behavior Level Crosstabulation

	Level of Friendly Behavior	Total

R. Nirwana, R. Marliadi, R. Alfikri, R. Nadiar, Mutmainah

			Good Behavior	Fair Behavior	Poor Behavior	
Level of Environmental Knowledge	Good Knowledge	Count	41	7	0	48
		% of Total	44.6%	7.6%	0.0%	52.2%
	Fair Knowledge	Count	20	20	1	41
		% of Total	21.7%	21.7%	1.1%	44.6%
	Poor Knowledge	Count	0	3	0	3
		% of Total	0.0%	3.3%	0.0%	3.3%
Total		Count	61	30	1	92
		% of Total	66.3%	32.6%	1.1%	100.0%

Source: Data processed by the researcher using SPSS 25 in 2025

Good environmental knowledge tends to lead to good environmentally friendly behavior (44.6%). Fair environmental knowledge results in both good and fair environmentally friendly behavior with equal proportions (21.7%). Meanwhile, poor environmental knowledge is associated with fair environmentally friendly behavior (3.3%)

Table 7. Chi-Square Tests (Environmental Involement)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	104.871[a]	4	.000
Likelihood Ratio	116.961	4	.000
Linear-by-Linear Association	77.080	1	.000
N of Valid Cases	92		

a. 4 cells (44,4%) have expected count less than 5. The minimum expected count is 1,96.

Source: Data processed by the researcher using SPSS 25 in 2025

Based on the table, it is evident that the Asymp Sig value of 0.000 is less than $\alpha = 0.05$. Therefore, there is a significant relationship between the Use of Renewable Energy, Natural Resource Utilization, and Tri Dharma Education. The tabulation table is presented below.

Table 8. Renewable Energy Level * Natural Resource Utilization Level Crosstabulation

			Level of Natural Resource Utilization			
			Good Natural Resource Utilization	Fair Natural Resource Utilization	Poor Natural Resource Utilization	Total
Renewable Energy Level	Good	Count	14	8	0	22
		% of Total	15.2%	8.7%	0.0%	23.9%
	Enough	Count	1	9	2	12
		% of Total	1.1%	9.8%	2.2%	13.0%
	Less	Count	0	0	58	58
		% of Total	0.0%	0.0%	63.0%	63.0%
Total		Count	15	17	60	92
		% of Total	16.3%	18.5%	65.2%	100.0%

Source: Data processed by the researcher using SPSS 25 in 2025

The table shows that good renewable energy usage corresponds to 15.2% good, 8.7% moderate, and 0% poor natural resource utilization. Moderate renewable energy usage corresponds to 1.1% good, 9.8% moderate, and 2.2% poor natural resource utilization. Meanwhile, poor renewable energy usage is dominated by poor natural resource utilization at 63%, with no good or moderate utilization reported.

Table 9. Natural Resource Utilization Level * Tri Dharma Level Crosstabulation

			Tri Darma Level			Total
			Good	Enough	Less	
Natural Resource Utilization Level	Good Natural Resource Utilization	Count	11	4	0	15
		% of Total	12.0%	4.3%	0.0%	16.3%
	Moderate Natural Resource Utilization	Count	1	14	2	17
		% of Total	1.1%	15.2%	2.2%	18.5%
	Less Natural Resource Utilization	Count	0	1	59	60
		% of Total	0.0%	1.1%	64.1%	65.2%
Total		Count	12	19	61	92
		% of Total	13.0%	20.7%	66.3%	100.0%

Source: Data processed by the researcher using SPSS 25 in 2025

Based on the table, it can be seen that good natural resource utilization corresponds to 12% good, 4.3% moderate, and 0% poor Tri Dharma education. Moderate natural resource utilization corresponds to 1.1% good, 15.2% moderate, and 2.2% poor Tri Dharma education. Meanwhile, poor natural resource utilization is dominated by poor Tri Dharma education at 64%.

Qualitative Analysist

1. Environmental Awareness
    a. Environmental Knowledge
    Respondents have a basic understanding of environmental issues; however, their awareness of the importance of the environment is still limited. Their knowledge is rated from neutral to good, indicating a need for deeper awareness and understanding.
    "I know it's important to protect the environment, but the campus hasn't really organized activities that properly educate students," said one senior lecturer.
    b. Environmentally Friendly
    Respondents are motivated to adopt environmentally friendly behaviors such as waste management and resource conservation. To further promote these behaviors, awareness and knowledge need to be enhanced through initiatives such as education, waste management programs, and campus environmental policies.
    "We haven't participated in campus clean-ups because there are already cleaning staff. So students are rarely involved," said a student.
2. Environmental Involvement
    a. Renewable Energy
    Respondents support the use of renewable energy on campus to reduce negative environmental impacts and increase cost efficiency. STIE Pancasetia has implemented renewable energy, such as solar-powered street lights. However, there is still a gap between respondents' knowledge and awareness of renewable energy. The campus needs to enhance student awareness and understanding of renewable energy through education and effective campaign programs.
    "It would be great if indoor lighting could also use solar energy to save electricity," suggested a management lecturer.
    b. Natural Resource Management
    Respondents recognize the importance of managing natural resources wisely for environmental sustainability and supporting sustainable development. They also emphasize

R. Nirwana, R. Marliadi, R. Alfikri, R. Nadiar, Mutmainah

the importance of environmental awareness and education in resource management. The campus has conducted several resource management activities, such as greening programs and waste management.

"The campus has limited greenery, so there should be a well-planned tree-planting program," said a foundation staff member.

c. Tri Dharma of Higher Education

Respondents have a high awareness of the importance of environmental education and the Tri Dharma of Higher Education. However, the campus does not yet offer specific environmental courses, and environmental research is still limited. There is a need to integrate environmental education into the curriculum and campus activities, as well as increase support for environment-based research.

"Our focus is on economics, but economics is closely related to environmental issues. Lecturers and students should be more creative in finding topics that combine both," said the Head of LPPM STIE Pancasetia.

3. Environmental Reporting

a. Scope of Environmental Reporting

The main obstacles to environmental reporting at STIE Pancasetia are limited human resources, institutional awareness, and unclear regulations. The effectiveness of environmental reporting cannot be accurately assessed due to incomplete implementation. Suggestions to improve environmental reporting include implementing structured and transparent reporting, increasing staff competence, and developing clear environmental reporting guidelines.

"We want to create a more transparent environmental report, but our human resources and guidelines are still limited," said the Head of STIE Pancasetia.

b. Disclosure of Environmental Impact

STIE Pancasetia has made efforts to efficiently manage natural resources and reduce environmental impact, such as saving water and electricity. Challenges include delays in reporting and limited human resources. Possible solutions include earlier reporting and collaboration with environmental agencies.

c. Stakeholder Involvement

STIE Pancasetia can involve stakeholders in environmental reporting through joint activities and report dissemination. The main obstacles are scheduling conflicts and lack of cooperation. However, environmental reporting can increase stakeholder awareness if conducted effectively.

d. Environmental Reporting Standards

The main challenge in implementing environmental reporting standards is aligning them with the existing system. The effectiveness of reporting standards at STIE Pancasetia is considered good because they are fact-based and receive positive feedback. Suggestions to improve report quality include creating a reporting schedule and adding facilities.

4. Environmental Audit

a. Scope of Environmental Audit

The main challenges in environmental auditing at STIE Pancasetia come from limited time, incomplete reporting, and low environmental awareness. Nevertheless, the effectiveness of audits is considered high because they involve stakeholders.

b. Audit Findings

The main audit findings highlight issues in waste management and disposal, including irregular disposal practices and lack of greenery. Recommendations focus on improving waste management and greening initiatives.

"The last audit found problems in waste management and a lack of green areas," said a structural lecturer.

c.   Environmental Compliance Evaluation

STIE Pancasetia faces challenges in meeting standards for waste management and disposal. After compliance evaluation, the institution carried out corrective actions, including improving facilities and awareness campaigns. Compliance evaluation has had a positive impact on reducing environmental impact at STIE Pancasetia.

CONCLUSIONS AND RECOMMENDATIONS

This research reveals that the implementation of Green Accounting based on University Social Responsibility (USR) at STIE Pancasetia demonstrates both progress and limitations. Quantitative analysis shows a significant relationship between environmental knowledge and environmentally friendly behavior, indicating positive awareness within the academic community. The institution has made early efforts to integrate renewable energy use, natural resource management, and environmental education into its operational framework, reflecting a growing commitment to sustainability. However, environmental reporting and auditing remain the weakest components, as limited human resources and the absence of clear guidelines hinder the effectiveness of these systems, thereby affecting transparency and accountability.

In light of these findings, this study recommends strengthening environmental awareness and involvement through targeted programs that promote sustainable practices, integrating Green Accounting principles within the university's key functions of education, research, and community service, and improving reporting and auditing mechanisms to ensure transparency and accountability. Through these integrated and continuous efforts, STIE Pancasetia is expected to establish a more comprehensive environmental management system and reinforce its role as a higher education institution committed to sustainability and environmental responsibility.

REFERENCES

Agrawal, A., & Knoeber, C. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 31(3), 377–397. https://doi.org/10.2307/2331397

Al Frijat, H., Alzoubi, E., & Khrais, L. (2025). Green accounting practices: Pathways to sustainable business growth. *Sustainability Accounting Journal*, 10(1), 45–60. https://doi.org/10.1080/20430795.2025.182344

Ambarsari, S. D., Ambarwati, S. D., & Hwihanus, H. (2024). The role of green accounting in promoting corporate sustainability. *International Journal of Economics, Commerce, and Management*, 1(3).

Bashir, M., & Kim, S. (2024). Environmental awareness and sustainable behavior in higher education. *Journal of Cleaner Production*, 401, 136648. https://doi.org/10.1016/j.jclepro.2023.136648

Cahyaningrum, A., Wardana, M. I., & Hwihanus, H. (2024). Development of green accounting for sustainable monitoring and reporting in modern business. *Ethics and Law Journal: Business and Notary*, 2(2).

Dunakhir, S., Kusumawardhani, E., & Suryani, D. (2024). Green accounting: A systematic integration into financial systems. *Jurnal Akuntansi Kontemporer*, 14(3), 151–161. https://doi.org/10.33508/jako.v14i3.3514

European University Association. (2018). University social responsibility: Strategies and policies.

Global Sustainability Research. (2023). Community and environmental engagement in higher education.

Green accounting practices: A pathway to sustainable business growth. (2024). *Sustainability Accounting Journal*, 10(1), 45–60. https://doi.org/10.1080/20430795.2025.182344

GRI (Global Reporting Initiative). (2020). *GRI Standards*.

Hollister, R. (2017). University social responsibility frameworks. *Higher Education Review*, 49(2), 89–103. https://doi.org/10.1108/HER-01-2017-0007

IFAC (International Federation of Accountants). (2021). *Environmental and sustainability accounting guidance*.

Jasch, C. (2019). *Environmental and material flow cost accounting: Principles and procedures*. Springer. https://doi.org/10.1007/978-1-4020-9028-8

Luciano, A., Smith, R., & Chen, L. (2024). Environmental auditing in higher education institutions. *Journal of Environmental Management*, 312, 116049. https://doi.org/10.1016/j.jenvman.2023.116049

Mafongosi, T., et al. (2024). Community service and environmental engagement in universities. *International Journal of Sustainability in Higher Education*, 25(4), 780–796. https://doi.org/10.1108/IJSHE-05-2024-0081

Nugroho, D., & Lestari, P. (2024). Corporate environmental footprint monitoring for transparency and accountability. *Jurnal Akuntansi Kontemporer*, 14(4), 201–214. https://doi.org/10.33508/jako.v14i4.3678

Oranga, P., et al. (2025). Mixed-methods research in social sciences. *Journal of Research Methodology*, 12(2), 112–130. https://doi.org/10.1080/14780887.2025.183245

PP No. 45 Tahun 2019. Peraturan Pemerintah tentang Perguruan Tinggi dan Tanggung Jawab Sosial.

Minister of Finance Regulation No. 124 of 2024. Tentang pelaksanaan tanggung jawab sosial dan lingkungan institusi pendidikan.

Putri, A., Sari, R., & Pratama, S. I. (2022). Green accounting and its implementation in Indonesia. *Jurnal Akuntansi Kontemporer*, 14(3), 151–161. https://doi.org/10.33508/jako.v14i3.3514

Qu, X., Shi, Y., Yu, P., & Bao, L. (2025). Mixed-method research in education. *International Journal of Educational Research*, 120, 102142. https://doi.org/10.1016/j.ijer.2024.102142

Rahman, M. M., & Chen, M. (2023). Environmental awareness, participation, and sustainability outcomes. *Environmental Science and Policy*, 145, 47–59. https://doi.org/10.1016/j.envsci.2023.03.012

Sari, R., & Pratama, S. I. (2023). Green accounting indicators in sustainability reporting: Triple Bottom Line approach. *Journal of Accounting and Sustainability*, 6(2), 85–100. https://doi.org/10.1016/j.jas.2023.100056

Setiawan, D., et al. (2024). Agency theory applications in corporate financial reporting: A systematic literature review. *Accounting Research Journal*, 37(1), 1–25. https://doi.org/10.1108/ARJ-09-2024-0123

Suhartini, E., Widoretno, W., & Azmiyanti, R. (2024). University social responsibility and green accounting implementation. *Journal of Social and Environmental Accounting*, 8(1), 15–30. https://doi.org/10.1080/20430795.2024.182255

TIMSS & PIRLS International Study Center. (2023). *Global environmental awareness survey report*.

Urbaniak, P., et al. (2024). Education for sustainable development: University practices. *Sustainability in Education Journal*, 18(2), 101–118. https://doi.org/10.1080/sedj.2024.020118

Yasrawan, K. T., & Werastuti, D. N. S. (2022). Implementation of green accounting to increase awareness and environmental performance. *Jurnal Akuntansi Kontemporer*, 14(3), 151–161. https://doi.org/10.33508/jako.v14i3.3514