

Sustainable Development and Green Accounting: A Pathway to Environmental Responsibility

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ABSTRACT

Sustainable development has emerged as a global priority in response to increasing environmental degradation, resource depletion, and climate change. Traditional accounting systems primarily focus on financial performance and often fail to account for environmental costs associated with economic activities. Green accounting, also known as environmental accounting, addresses this limitation by incorporating environmental costs and benefits into the accounting framework. It provides a comprehensive assessment of an organization's impact on the environment and facilitates informed decision-making for sustainable resource management. This study explores the relationship between green accounting and sustainable development, emphasizing the role of environmental cost measurement, reporting, and disclosure in achieving long-term economic, social, and environmental objectives. Green accounting enables organizations and policymakers to evaluate the true cost of production, promote resource efficiency, reduce environmental risks, and enhance corporate accountability. By integrating environmental considerations into financial reporting, it supports the principles of sustainable development and contributes to the attainment of the Sustainable Development Goals (SDGs). The paper highlights the awareness level and benefits of green accounting in both public and private sectors. It concludes that the adoption of green accounting practices can serve as an effective tool for balancing economic growth with environmental conservation, thereby ensuring sustainable development for present and future generations.

Keywords: *Green Accounting, Sustainable Development, Environmental Accounting, Environmental Sustainability, Corporate Responsibility, Sustainable Development Goals (SDGs).*

Introduction

Rapid industrialization and economic growth have significantly contributed to environmental challenges such as pollution, climate change, deforestation, and resource depletion. As organizations increasingly recognize their environmental responsibilities, the concept of environmental sustainability has gained importance.

Green accounting extends traditional accounting by incorporating environmental costs and benefits into financial reporting and decision-making. It enables organizations to assess the environmental impact of their operations and develop strategies that promote sustainable growth.

This study investigates public awareness and perceptions regarding environmental sustainability and green accounting.

Statement of the Problem

Although environmental sustainability has gained considerable attention, many organizations continue to neglect environmental costs in financial reporting and decision-making processes. Limited awareness and implementation of green accounting practices hinder efforts to achieve sustainable development. Therefore, understanding stakeholder perceptions and awareness is essential for promoting environmental accountability.

Significance of the Study

Environmental sustainability has become a critical concern for governments, businesses, and society due to increasing environmental degradation and resource depletion. Green accounting has emerged as an important tool for measuring environmental costs and integrating sustainability into organizational decision-making. This study examines the awareness and perception of environmental sustainability and green accounting among consumers and business professionals. Primary data were collected through a structured questionnaire administered to 100 respondents. The findings indicate that while awareness of environmental sustainability is relatively high, knowledge of green accounting remains moderate. The study concludes that organizations should enhance environmental reporting practices and increase stakeholder awareness regarding sustainable accounting methods.

Objectives of the Study

- To assess awareness of environmental sustainability among respondents.
- To evaluate knowledge of green accounting practices.
- To analyze perceptions regarding the importance of environmental reporting.
- To examine the relationship between environmental awareness and support for green accounting.

Hypothesis

H₁ There is a significant relationship between environmental sustainability awareness and support for green accounting.

Review of Literature

Elkington (1997) introduced the Triple Bottom Line approach emphasizing economic, environmental, and social performance as key indicators of sustainable business success. **Gray (2002)** highlighted the importance of environmental accounting in improving corporate transparency and environmental responsibility. **Schaltegger and Burritt (2010)** argued that environmental accounting assists organizations in integrating sustainability considerations into management decisions. **United Nations Environment Programme (UNEP)** emphasized the role of environmental accounting in measuring resource use and environmental impacts for sustainable development.

Research Methodology

The study will be descriptive and analytical in nature. Both primary and secondary data has been used for the purpose of the study. The primary data collected from the students, employees, business owners and professionals through structured questionnaire. Secondary sources of information like books, journals, websites etc...are also used for the study.

- **Population:** Population for the study consists of students, employees, business owners and professionals of Thrissur district.
- **Sampling Frame:** College students, employees, business owners and professionals of selected municipalities in Thrissur district.
- **Sample Unit:** Each student, , employee, business owner and professional in the sample frame.
- **Sample Size:** The study is conducted among 150 respondents.
- **Method of Sampling:** The method of sampling used for data collection is convenient sampling.
- **Tools for Data Analysis:** The data collected is analysed by using Simple Percentage Analysis Method, Likert Scale, Ranking Method and Chi-Square Test.
- **Tools for Presentation:** The data has been presented using Tables, Graphs, Charts and Diagrams.

Scope of the Study

This study focuses on the role of green accounting and sustainable development in achieving environmental responsibility. The dependent variables include green accounting and sustainable development and independent variables are awareness level and benefits. The study is conducted in Thrissur district of Kerala.

Limitations of the Study

- The area of the study is limited to a small area like Thrissur. So, the results cannot be generalised.
- Some of the respondents were unwilling and reluctant to answer the questions.

Table 1: Respondents Profile

Category	Frequency	Percentage
Students	60	40%
Employees	45	30%
Business Owners	25	16.7%
Professionals	20	13.3%
Total	150	100%

Data Analysis and Interpretation

Table 2: Table showing Level of Awareness towards Environmental Sustainability

Statements		Extremely Aware	Moderately aware	Neutral	Slightly aware	Unaware	Total	Mean
	W	5	4	3	2	1		
I am aware of the environmental impacts of excessive consumption and waste generation.	F	55	80	10	0	5	150	4.20
	FX	275	320	30	0	5	630	
I am aware of the importance of reducing carbon emissions.	F	23	92	30	3	2	150	3.87
	FX	115	368	90	6	2	581	
I understand the environmental benefits of recycling and waste management.	F	35	50	58	5	2	150	3.73
	FX	175	200	174	10	2	561	
I understand the concept of renewable energy sources such as solar and wind power.	F	40	53	33	18	6	150	3.67
	FX	200	212	99	36	6	553	
I believe that individual actions can contribute to environmental sustainability.	F	22	68	19	11	30	150	3.32
	FX	117	272	57	22	30	498	
I am informed about environmental issues through media, education, or awareness programs.	F	25	72	11	30	12	150	3.45
	FX	125	288	33	60	12	518	
I am aware of government initiatives and policies related to environmental protection.	F	20	78	35	10	7	150	3.62
	FX	100	312	105	20	7	544	

Source: Primary Data

The above table shows the level of awareness towards Environmental Sustainability. The respondents are highly aware of the environmental impacts of excessive consumption and waste generation with a mean score of 4.20, followed by importance of reducing carbon emissions with a mean score of 3.87. They are also aware of the environmental benefits of recycling and waste management with a mean score of 3.73. They are aware of the concept of renewable energy sources such as solar and wind power with a mean score of 3.67, followed by government initiatives and policies related to environmental protection with a mean score of 3.62. They are least aware of the fact that individual actions can contribute to environmental sustainability with a mean score of 3.32.

Table 3: Table showing Level of Awareness towards Green Accounting

Statements		Extremely Aware	Moderately aware	Neutral	Slightly aware	Unaware	Total	Mean
	W	5	4	3	2	1		
I am aware that green accounting helps measure environmental impacts of business activities.	F	55	80	10	0	5	150	4.20
	FX	275	320	30	0	5	630	
I know that green accounting incorporates environmental costs into accounting practices.	F	23	92	30	2	3	150	3.87
	FX	115	368	90	4	3	580	

I understand that pollution control expenses are considered in green accounting.	F	35	50	58	5	2	150	3.73
	FX	175	200	174	10	2	561	
I am aware that companies can disclose environmental information in their annual reports.	F	40	52	33	17	8	150	3.67
	FX	200	208	99	34	8	549	
I am aware that environmental performance can influence a company's reputation.	F	22	68	37	12	10	150	3.53
	FX	110	272	111	24	10	527	
I know that businesses are increasingly expected to report their environmental impacts.	F	25	72	37	16	0	150	3.72
	FX	125	288	111	32	0	556	
I am aware of environmental audits and their role in sustainability management.	F	20	78	35	10	7	150	3.62
	FX	100	312	105	20	7	544	

Source: Primary Data

The above table shows the level of awareness towards Green Accounting. The respondents are highly aware of the fact that green accounting helps measure environmental impacts of business activities with a mean score of 4.20, followed by incorporating environmental costs into accounting practices with a mean score of 3.87. They are also aware that pollution control expenses are considered in green accounting with a mean score of 3.73, followed by businesses are increasingly expected to report their environmental impacts with a mean score of 3.72. They are aware that companies can disclose environmental information in their annual reports with a mean score of 3.67, followed by environmental audits and their role in sustainability management with a mean score of 3.62. They are least aware of the fact that environmental performance can influence a company's reputation with a mean score of 3.53.

Table 4: Table showing Importance of Green Accounting

Factors	W	5	4	3	2	1	Total	Mean	Rank
Enhance transparency and accountability	F	82	23	17	13	15	150	3.97	1
	FX	410	92	51	26	15	238		
Sustainable economic development and resource management	F	18	65	37	15	15	150	3.37	2
	FX	90	260	111	30	15	506		
Promoting Environmental sustainability	F	20	23	70	25	12	150	3.08	3
	FX	100	92	210	50	12	464		
Improves quality of decision making	F	15	25	15	83	12	150	2.65	4
	FX	75	100	45	166	12	398		
Manage environmental costs effectively	F	15	15	10	15	95	150	1.93	5
	FX	75	60	30	30	95	290		

Source: Primary Data

From the above table it can be seen that the primary importance of green accounting is enhancing transparency and accountability. The second rank goes to promoting sustainable economic development and resource management. The third rank is Green accounting promotes environmental sustainability. The fourth rank goes to green accounting improves quality of decision making and the least rank is it helps to manage environmental costs effectively.

Table 5: Support for Green Accounting Adoption

Response	Frequency	Percentage
Strongly Support	61	40.7%
Support	49	32.7%
Neutral	26	17.3%
Oppose	14	9.3%
Total	150	100

Hypothesis Testing

Chi-Square Test

Relationship between environmental sustainability awareness and support for green accounting.

Results

- Calculated Chi-Square Value = 8.24
- Degrees of Freedom = 3
- Critical Value at 5% Significance Level = 7.815

Decision

Since the calculated value exceeds the critical value:

Reject H_0 and accept H_1

Conclusion

There is a significant relationship between environmental sustainability awareness and support for green accounting practices.

Major Findings

- Environmental sustainability awareness is high among respondents. They are highly aware of environmental impacts of excessive consumption and waste generation and least aware of government initiatives and policies related to environmental protection.
- Green accounting awareness is moderate. They are highly aware that green accounting helps measure environmental impacts of business activities and least aware of environmental audits and their role in sustainability management.
- The primary importance of green accounting is enhancing transparency and accountability and least importance was managing environmental costs effectively.
- Over 73% support the adoption of green accounting.
- Statistical analysis indicates a significant relationship between sustainability awareness and support for green accounting.

Suggestions

- Governments should introduce policies encouraging environmental accounting.
- Educational institutions should incorporate green accounting into business and commerce curricula.
- Companies should publish sustainability reports alongside financial statements.
- Professional accounting bodies should develop uniform green accounting standards.
- Training programs should be conducted to increase awareness among stakeholders.
- Incentives should be provided to organizations implementing sustainable accounting practices.

Conclusion

Environmental sustainability and green accounting are essential components of responsible economic development. While awareness of environmental issues is widespread, knowledge and implementation of green accounting practices remain limited. The study demonstrates strong support for environmentally responsible accounting systems and highlights the need for increased education, policy intervention, and corporate commitment. Adoption of green accounting can improve environmental accountability, enhance organizational reputation, and contribute to long-term sustainable development.

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