

ASSESSING AWARENESS OF GREEN ACCOUNTING PRACTICES AMONG CORPORATE INDUSTRIES IN PUNE DISTRICT

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ABSTRACT

Green accounting practices are becoming a norm in modern times and are the business equivalent of eco-friendly initiatives. These practices can be implemented by focusing on reducing environmental impacts, resource conservation, and social responsibility without making an overall financial cost. Most companies have begun adopting green accounting practices but it has become apparent that only some industries have awareness of them. The aim of this study is to determine the level of awareness among corporate industries in Pune District towards green accounting practice and understand the barriers to implementation. The results of the study indicate that there is sufficient awareness among the businesses towards green accounting practices in the Pune District. However, high costs and lack of resources have led to a lack of implementation. To overcome this, it is important to encourage inter- and intra- organizational communications to develop policies and conduct sustainability audits.

Keywords: green accounting practices, environmental impacts, resource conservation, social responsibility, financial cost, corporate industries, Pune District, level of awareness, barriers to implementation.

Introduction

In recent years, the concept of sustainability and environmental responsibility has gained significant attention across various sectors, including corporate industries. As the global community grapples with the challenges posed by climate change, pollution, and resource depletion, there is an increasing need for businesses to integrate sustainable practices into their operations. One vital aspect of this integration is the adoption of green accounting practices, which allow companies to measure, track, and report their environmental impacts and performance.

The city of Pune, located in Maharashtra, India, is known for its robust industrial sector comprising diverse businesses, ranging from manufacturing to IT services. As the district experiences rapid urbanization and industrial growth, it becomes crucial to assess the awareness and implementation of green accounting practices among corporate industries in Pune. This assessment will shed light on the level of environmental consciousness within the corporate sector and provide insights into the current state of sustainability practices.

Green accounting, also known as environmental accounting or ecological accounting, involves quantifying and evaluating the environmental costs and benefits associated with business activities. By incorporating the principles of green accounting, companies can make informed decisions that minimize their environmental footprint and promote sustainable development. This approach encompasses various aspects, including measuring greenhouse gas emissions, assessing energy consumption, evaluating water usage, and tracking waste generation and management.

Effective green accounting practices not only help companies reduce their environmental impact but also contribute to improved resource efficiency, cost savings, and enhanced corporate reputation. Furthermore, the adoption of sustainable practices aligns with regulatory requirements and societal expectations, positioning businesses as responsible contributors to the well-being of both the environment and the community.

The assessment of awareness of green accounting practices among corporate industries in Pune District aims to evaluate the level of knowledge, adoption, and integration of sustainability principles within businesses. It will involve surveying a representative sample of companies across different sectors, including manufacturing, IT, construction, and services. The survey will gauge the extent to which companies are familiar with green accounting concepts, whether they have implemented such practices, and if they face any barriers or challenges in doing so.

The findings of this assessment will serve as a foundation for identifying gaps and opportunities for improvement in sustainable practices among corporate industries in Pune. It will enable policymakers, industry associations, and other stakeholders to develop targeted initiatives, training programs, and policy frameworks to promote the adoption of green accounting practices. Moreover, the assessment will provide benchmarks to compare the progress of Pune District with other regions and facilitate knowledge sharing and collaboration in sustainable development.

In conclusion, assessing the awareness of green accounting practices among corporate industries in Pune District is essential to understand the current state of sustainability integration in businesses. By evaluating the level of knowledge and implementation of green accounting, the assessment will contribute to efforts aimed at enhancing environmental responsibility, resource efficiency, and sustainable growth in Pune's industrial sector. Ultimately, this endeavour will pave the way for a greener and more sustainable future for both businesses and the local community.

Review of Literature

Mishra (2018) adoption of green accounting practices and its role for sustainable development. He explains that the literature indicates significant gaps in knowledge and practice related to green accounting practices among corporate industries in Pune District. He also highlights the increased need for research to further develop sustainable practices in industry, as well as opportunities offered by designing modernized policies and programs to promote sustainability among businesses.

Young (2018) importance of developing a network of green accountants to support inter-organizational initiatives aimed at improving business performance. In addition, he discusses the need to integrate environmental accounting into current accounting frameworks and create a culture of sustainability and resource efficiency in the corporate sector.

Swaminathan, Sreekumar (2016) there is a lack of empirical evidence on awareness and implementation of green accounting practices in India. They explain that this is largely due to the lack of research which investigates the current state of green accounting practices among corporate industries within India, as well as its impact on performance and sustainability.

Ashraf, Ghadiri (2015) importance of green accounting to understand the environmental impacts of businesses, enable decision-making, and provide a foundation for further research. They explain that the current state of awareness and adoption of sustainable practices across industries is a pivotal research question for developing countries such as India.

Kumar et al. (2020) environmental accounting is one that is characterized by a high level of diversity and ambiguity. The lack of guidance for environmental accounting practices creates considerable problems for managing environmental issues and encourages businesses to focus more on short-term profits rather than mitigate long-term risks associated with pollution. Daikokuya et al. (2019) significance of utilizing green accounting in corporate industries as a mechanism to promote successful sustainable development among businesses. They note that while many countries and organizations have introduced standards, frameworks, or guidelines for green accounting, it has not been widely adopted in Japan to date.

Li et al. (2019), green accounting is rarely adopted in large businesses. They explain that companies often implement green accounting practices in an isolated manner and do not take into account their impact on the broader sustainability ecosystem. The limited attention to environmental accounting is further exacerbated by confusion about implementation of green accounting principles among businesses. Daikokuya et al. (2019) identify the need for increased collaboration between government agencies and businesses as well as establishing a network of professionals capable of providing assistance on issues related to environmental accounting.

Wang J. et al. (2018) importance of integrating sustainability into business management practice in order to address critical challenges and opportunities related to resources scarcity, climate change, and increasing public awareness towards sustainability issues. Rao et al. (2016), green accounting provides a valuable tool for creating a competitive advantage for organizations. They explain that investing in sustainable practices has become increasingly important as there is increasing pressure from local communities and donors to foster a culture of sustainability within business.

While it may be difficult to measure the impact of implementing green accounting standards on an organization's profitability, it is essential to note that the implementation of sustainable practices is not only environmentally beneficial; it is also an effective way to improve business performance and provide companies with an opportunity to gain competitive advantage (Rao et al., 2016). Overall there is a paucity of research on the current state of awareness and implementation of green accounting among corporate industries in India. The literature identifies gaps in knowledge and implementation of green accounting, as well as the importance of research to further develop sustainable practices in industry. Further research will contribute to efforts aimed at enhancing environmental responsibility, resource efficiency, and sustainable growth in Pune's industrial sector. Ultimately, this endeavour will pave the way for a greener and more sustainable future for both businesses and the local community.

Dutta et al. (2022) explore the adoption and implementation of green accounting practices in the manufacturing sector of a developing country. They highlight the importance of incorporating green accounting principles to enhance environmental performance and sustainability in the industry. The study reveals that there is limited awareness and understanding of green accounting practices among manufacturing firms, leading to minimal adoption. They emphasize the need for capacity building and knowledge dissemination programs to promote the integration of green accounting into business operations, thereby fostering sustainable development. Gupta and Sharma (2017) analyze the role of green accounting practices in the context of small and medium-sized enterprises (SMEs) in a specific region. They find that SMEs generally lack awareness and knowledge about green accounting and its potential benefits. The study highlights the need for targeted training programs and policy interventions to enhance green accounting practices among SMEs. It emphasizes that SMEs play a crucial role in sustainable development and that the integration of green accounting can contribute to their long-term competitiveness and environmental performance. The authors call for collaborative efforts between government agencies, industry associations, and academic institutions to facilitate the adoption of green accounting practices in SMEs.

Srivastava and Gadgil (2012) environmental disclosure practices of public sector organisations in India. The study found that public sector organisations in India are not very active in disclosing their environmental performance. Chakrabarty and Sarkar (2011) investigated the environmental disclosure practices of Indian firms. The study found that Indian firms are not very active in disclosing their environmental performance.

Objectives of the study

1. To examine the awareness and adoption of green accounting practices among businesses in Pune District.
2. To examine the understanding and perceptions related to environmental accounting among businesses in Pune District.

Hypothesis

H1: There is a low level of awareness and adoption of green accounting practices among businesses in Pune District.

The hypothesis suggests that there is a low level of awareness and adoption of green accounting practices among businesses in Pune District. This hypothesis is based on the assumption that many businesses may not be familiar with the concept of green accounting or its potential benefits. It is expected that only a small percentage of businesses in the district have implemented comprehensive green accounting practices, while the majority may still rely on traditional accounting methods that do not consider environmental factors.

Methodology

The research study employed a quantitative approach to assess the awareness and adoption of green accounting practices among businesses in Pune District. This approach allowed for the collection of numerical data, which could be analyzed statistically to draw reliable conclusions.

Sampling Technique:

A stratified random sampling technique was utilized to ensure representation from different sectors of businesses in Pune District. The district was divided into different strata based on industries such as manufacturing, IT, construction, and services. From each stratum, a proportional random sample of businesses was selected to participate in the study. This sampling technique ensured that the sample was representative of the overall population of businesses in Pune District.

Data Collection:

Primary data was collected through a structured questionnaire administered to the selected businesses. The questionnaire was designed to capture relevant information regarding the awareness and adoption of green

accounting practices. The questionnaire consisted of both closed-ended and Likert-scale questions to obtain quantitative data. It included sections on the level of awareness of green accounting practices, current implementation status, perceived benefits, and perceived barriers to adoption.

Data Analysis:

The collected data was analysed using statistical software. Descriptive statistics, such as frequencies and percentages, were used to summarize the responses to closed-ended questions. Likert-scale responses were analysed using measures of central tendency, such as mean and standard deviation, to assess the level of agreement or disagreement among respondents. One sample T test was used to test the hypothesis. The hypotheses will be tested through a survey conducted among a representative sample of 130 business managers in Pune District. The survey will include questions that assess the level of awareness, adoption, understanding, and perceptions of green accounting practices. The responses collected will be analyzed and compared to evaluate the validity of the hypotheses. The findings will provide insights into the current state of green accounting practices among businesses in Pune District and inform recommendations for improving awareness and adoption of sustainable accounting practices.

Analysis of Data

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 25 years	3	3.0	3.0	3.0
	26 to 35 years	12	12.0	12.0	15.0
	36 to 45 years	22	22.0	22.0	37.0
	46 to 55 years	36	36.0	36.0	73.0
	Above 55 years	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

Table 1. Age of Respondents

The data presented in Table 1 provides information about the age distribution of the respondents in the study. It shows that out of the total 100 respondents, 3% were in the age range of 18 to 25 years, 12% were in the age range of 26 to 35 years, 22% were in the age range of 36 to 45 years, 36% were in the age range of 46 to 55 years, and 27% were above 55 years of age. The cumulative percent column indicates the cumulative distribution of respondents across different age groups. From the table, we can observe that the majority of the respondents were in the age range of 46 to 55 years, accounting for 36% of the total sample. This information provides insights into the age demographics of the participants in the study.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	5	5.0	5.0	5.0
	4-10 years	23	23.0	23.0	28.0
	11 to 20 years	41	41.0	41.0	69.0
	Above 20 years	31	31.0	31.0	100.0
	Total	100	100.0	100.0	

Table 2. Experience of Respondents

This table provides an overview of the respondents' work experience in the study. Out of the total 100 respondents, 5% reported having 1-3 years of experience, 23% had 4-10 years of experience, 41% had 11-20 years of experience, and 31% had over 20 years of experience. The cumulative percent column shows the cumulative distribution of respondents across the different experience categories. From the table, we can observe that the largest group of respondents falls into the 11-20 years of experience category, accounting for 41% of the total sample. This information provides insights into the distribution of work experience among the participants in the study.

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
I believe that integrating green accounting practices can contribute to sustainable development	8	8.0%	12	12.0%	10	10.0%	33	33.0%	37	37.0%

I am familiar with the benefits associated with green accounting practices	6	6.0%	10	10.0%	5	5.0%	43	43.0%	36	36.0%
There are challenges or barriers to adopting green accounting practices	3	3.0%	4	4.0%	11	11.0%	31	31.0%	51	51.0%
I believe that implementing green accounting practices can lead to long-term cost savings for the business	8	8.0%	7	7.0%	10	10.0%	40	40.0%	35	35.0%
I am likely to integrate green accounting practices into our business operations in the next two years	3	3.0%	9	9.0%	4	4.0%	38	38.0%	46	46.0%
I think customers and stakeholders value businesses that practice green accounting	4	4.0%	7	7.0%	11	11.0%	32	32.0%	46	46.0%

Table 3. Perception

The table provides the responses of the participants to a set of Likert-scale statements related to their beliefs and perceptions about green accounting practices. The responses are categorized into five levels: "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree."

From the table, we can observe that for the statement "I believe that integrating green accounting practices can contribute to sustainable development," 33% of respondents agreed, and 37% strongly agreed, indicating a positive perception regarding the contribution of green accounting practices to sustainable development.

Regarding the statement "I am familiar with the benefits associated with green accounting practices," 43% of respondents agreed, and 36% strongly agreed, suggesting a relatively high level of familiarity with the benefits of green accounting practices among the participants.

For the statement "There are challenges or barriers to adopting green accounting practices," 31% of respondents agreed, and 51% strongly agreed, indicating a widespread acknowledgment of the existence of challenges or barriers in adopting green accounting practices.

When asked about the belief that implementing green accounting practices can lead to long-term cost savings for the business, 40% of respondents agreed, and 35% strongly agreed, implying a general recognition of the potential cost-saving benefits associated with green accounting practices.

Regarding the statement "I am likely to integrate green accounting practices into our business operations in the next two years," 38% of respondents agreed, and 46% strongly agreed, indicating a significant willingness to adopt green accounting practices in the near future.

Lastly, for the statement "I think customers and stakeholders value businesses that practice green accounting," 32% of respondents agreed, and 46% strongly agreed, highlighting the perception that customers and stakeholders attach value to businesses that implement green accounting practices.

Overall, the responses reflect a generally positive awareness and perception of green accounting practices among the participants, suggesting a favorable inclination towards the integration of sustainable accounting practices in their businesses.

	Very Low		Low		Moderate		High		Very High	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Please rate your level of awareness regarding green accounting practices	6	6.0%	5	5.0%	6	6.0%	34	34.0%	49	49.0%

How would you rate the level of support and guidance available to businesses in Pune District for implementing green accounting practices?	26	26.0%	19	19.0%	6	6.0%	26	26.0%	23	23.0%
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Table 4. Awareness and Support

The table presents the responses of the participants to Likert-scale statements regarding their level of awareness regarding green accounting practices and the level of support and guidance available to businesses in Pune District for implementing such practices.

For the statement "Please rate your level of awareness regarding green accounting practices," 34% of respondents rated their awareness as high, and 49% rated it as very high, indicating a substantial level of awareness among the participants. Conversely, 6% rated their awareness as very low, and 5% as low, suggesting a smaller proportion with lower levels of awareness.

Regarding the statement "How would you rate the level of support and guidance available to businesses in Pune District for implementing green accounting practices?" 26% of respondents rated the level of support as very low, and 19% as low, indicating a significant perception of inadequate support and guidance. On the other hand, 26% rated it as high, and 23% as very high, suggesting a relatively positive perception of support and guidance availability.

These findings suggest that while there is a notable level of awareness regarding green accounting practices among the participants, there is a perceived need for improvement in the support and guidance available for implementing such practices in Pune District. This indicates a potential gap that could be addressed to enhance the adoption and implementation of green accounting practices by businesses in the district.

Testing of Hypotheses

	N	Mean	Std. Deviation	Std. Error Mean
Please rate your level of awareness regarding green accounting practices	100	4.1500	1.13150	.11315
How would you rate the level of support and guidance available to businesses in Pune District for implementing green accounting practices?	100	3.0100	1.56021	.15602

Table No.5 One-Sample Statistics

These statistics indicate that, on average, the respondents rated their level of awareness regarding green accounting practices as 4.1500. The standard deviation of 1.13150 suggests some variability in the responses, indicating that awareness levels varied among the participants. The standard error mean of 0.11315 indicates the precision of the mean estimate.

Statistics also reveal that, on average, the respondents rated the level of support and guidance available for implementing green accounting practices as 3.0100. The standard deviation of 1.56021 suggests a relatively higher variability in the responses compared to the awareness rating. The standard error mean of 0.15602 indicates the precision of the mean estimate for this statement.

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Please rate your level of awareness regarding green accounting practices	10.163	99	.000	1.15000	.9255	1.3745
How would you rate the level of support and guidance available to businesses in Pune District for implementing green accounting practices?	.064	99	.949	.01000	-.2996	.3196

Table No.6 One-Sample Test

The one-sample t-test was conducted to compare the average ratings provided by the respondents for their level of awareness regarding green accounting practices and the perceived level of support and guidance available for implementing such practices in Pune District.

For the statement "Please rate your level of awareness regarding green accounting practices," the t-value of 10.163 is highly significant ($p < .05$), indicating that the respondents' average awareness level ($M = 4.1500$) is significantly higher than the expected mean of 3. The mean difference of 1.15000 suggests that, on average, the respondents' awareness rating exceeds the expected mean by 1.15000 units. The 95% confidence interval (CI) of the difference (lower = .9255, upper = 1.3745) further supports this finding.

In contrast, for the statement "How would you rate the level of support and guidance available to businesses in Pune District for implementing green accounting practices?" the t-value of .064 is not significant ($p = .949$), indicating that the respondents' average rating ($M = 3.0100$) does not significantly differ from the expected mean of 3. The mean difference of .01000 suggests a negligible difference between the average rating and the expected mean. The 95% CI of the difference (lower = -.2996, upper = .3196) further confirms this lack of significance.

Therefore, the results indicate that the participants have a significantly higher level of awareness regarding green accounting practices than the expected mean, but their perceived level of support and guidance available for implementing these practices does not significantly differ from the expected mean. This highlights the need to focus on enhancing the support and guidance available to businesses in Pune District to align with the participants' elevated awareness levels and foster the effective implementation of green accounting practices.

Findings

High Awareness:

A significant proportion of respondents (83%) reported having a moderate to very high level of awareness regarding green accounting practices. This indicates a substantial understanding of the concept and its relevance among businesses in Pune District.

Positive Perception of Benefits:

A majority of respondents (79%) expressed agreement or strong agreement with the belief that integrating green accounting practices can contribute to sustainable development. Additionally, 75% of respondents believed that implementing green accounting practices can lead to long-term cost savings for their businesses. These findings highlight the positive perception of the benefits associated with green accounting practices.

Recognition of Challenges:

A large majority of respondents (82%) acknowledged the presence of challenges or barriers to adopting green accounting practices. This suggests an awareness of the potential difficulties that businesses may face when implementing sustainable accounting practices.

Willingness to Adopt:

A significant proportion of respondents (84%) indicated a positive inclination towards integrating green accounting practices into their business operations in the next two years. This finding reflects a readiness to embrace sustainable accounting practices among businesses in Pune District.

Need for Support and Guidance:

While respondents generally showed high awareness and willingness to adopt green accounting practices, a substantial proportion (45%) rated the level of support and guidance available for implementing such practices as low to very low. This finding highlights the need for improved support mechanisms and guidance for businesses in Pune District to facilitate the successful adoption of sustainable accounting practices.

Overall, the findings indicate favourable awareness and perception of green accounting practices among businesses found in Pune District, with recognition of benefits and a willingness to integrate these practices into their operations. However, there is a need for addressing challenges and providing better support and guidance to enhance the adoption of sustainable accounting practices in the region. As well corporate need to provide appropriate training to staff for implementation & reporting.

Conclusion

The findings of this study indicate that businesses in Pune District have a high level of awareness and perception of green accounting practices. There is a recognition of the benefits of these practices, and a willingness to

integrate them into business operations. However, there are also challenges that need to be addressed, such as the need for better support and guidance.

The following are some recommendations for addressing the challenges and enhancing the adoption of green accounting practices in Pune District:

1. Provide more support and guidance to businesses. This could include developing training programs, providing access to resources, and creating a network of experts who can provide advice and support.
2. Develop clear standards and guidelines for green accounting practices. This would help businesses to understand what is expected of them, and make it easier for them to compare their performance with other businesses.
3. Create incentives for businesses to adopt green accounting practices. This could include tax breaks, grants, or other forms of financial assistance.

By addressing these challenges, businesses in Pune District can play a leading role in promoting sustainable development.

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