



INTERNATIONAL RESEARCH JOURNAL ON ADVANCED SCIENCE HUB

e-ISSN : 2582 - 4376
Open Access

RSP SCIENCE HUB

(The Hub of Research Ideas)
Available online at www.rspsciencehub.com

Special Issue of First International Conference on Social Work, Science & Technology (ICSST 2021)

Green Accounting - A Systematic Review Based on Environmental Sustainability

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Abstract

The study based on the conception of green accounting. We all know that in India green accounting is turning around the national and international level. It has an important role in social responsibility of business. It acts as a scanner of the effects of the organization on the environment, society and the economy of the nation. Green accounting provides value management and a combination of accounting and environment through which it facilitates the balance between the growth of both environment and economy. Responsibility regarding environmental development has turned out to be the most important area of responsibility towards society. This paper aims to analyze the effects in reference to the guidelines of green accounting and for implementing the approach of environmental design for upgrade the product. The findings can refer arrangements of green trends for the enterprises in the economy.

Keywords: *Green accounting, Environmental accounting, Environmental development, Sustainable development*

1. Introduction

India is a developing country and right now facing dual problems of promotion for growth of the environmental protection and the economy. There is a requirement of a balance between the economic development and environmental protection. There should be a heedful estimation of gain and costs of the damages of the environment to find out the degree of safety of degradation of environment and the needed level of growth. Everyone is aware about the fact that on our planet, there are limited natural resources and these business enterprises have done a lot of damages to the environment already. Green accounting provides for the welfare of the society. Green accounting also known as sustainable accounting and environmental accounting. It can be termed as measuring of income without harming the natural resources. It is environment

friendly approach which is relevant to all the sectors of the economy. It is an effort for decreasing the release of pollutants into the environment. Businesses must take responsibility for their effects on environment in the past, present and future. They are the reason for the damages caused by them before, during and after the production process, this implies that even the environmental expenses incurred as a result of usage of the product should be accounted for. And they need to give quantitative analysis of these effects in order to be able compare the results from time to time and keep taking active actions to keep minimizing them. If we want to calculate actual costs during computation of national income and measuring development in a country, we cannot ignore Environmental costs, though these might not directly involve monetary costs, they influence development and hence must be accounted and considered. Therefore, this study signals that the

companies may be the pacemaker of green design by implementing green reporting into their company and also encourage other firms to also implement them to have a strong environmental sustainability. With a view to implementing green accounting at all the levels of the organization, advanced environmental responsibility can be achieved. The benefits of green reporting is acknowledged as the tendency to regulate and generate receptiveness regarding expenses linked to the environment, which in turn assists in ascertaining the methods for decreasing and neglecting such costs. [1-5].

2. Review of Literature

Haripriya (1998 and 2000), studied thoroughly at the state and national levels and made an attempt to assimilate the forest resources in the state accounts of one state only that is Maharashtra only with the help of SEEA framework. In her another research, Haripriya (2001) included the resources of the forests into the national accounts for all the states. The studies adjusted the NDP (Net Domestic Product) in two different ways. The study done for Maharashtra exemplifies that the ratio of EDP to ANDP is around 99.3%. Verma (2002), made an effort to use green accounting concept to figure out the true economic value of Himachal Pradesh forests and highlighted the watershed values in the local and regional economies and in the GDP of the state. He showed in his study that the contribution of forestry sector to the economy of the state is underestimated. GIST (Green Indian States Trust) (2005), has done a project named as Green Indian Accounting States Project (GAISP) and developed a green report on it. Under this project, accounting process was adopted for the forest resources. For the evaluation GSDP, study was done on the value of non-timber forests products, timber, fuel wood and carbon. According to this Green Report, if the ratio of Environmental Adjusted State Domestic Product to National State Domestic Product is less than one then it means that in terms of environment the economy is doing well. But if the ratio is higher than one then this refers that the growth of economy causes threat to environment in the states. Atkinson and Haripriya (2006), studied on the wealth of the forest in India. They discovered in their findings that while the wealth of the forests of India is substantial, with regards to GNP, clear

shifts in its wealth are not wide ranging. However, they found out that there is a requirement of additional savings attempts to monitor the damages in values of forests when this is viewed with reference to the wealth weakening effects of the growth of population. Finally, they also found some different techniques they can adopt in which the accounting system can be resolved with methods that focus on preserving forest wealth. Otte (2008) stated that there are definite external and internal benefits for the company if green reporting is implemented. By applying the approach of green-house gas, communication system would be advanced which results in the decreasing the costs. There are some drawbacks and barricades of green reporting also. But the author remarked confident roots and by adopting them the company can overcome these blockades. Cletus Akenbor (2008), has done a study on factors which effect green accounting development with the purpose of examining how green accounting can be used for competitive advantage and identified various categories of costs associated with the environmental performance. He mentioned that proper training is needed for the implementation of the system in business firms, it should be added as a subject in accounting curriculum and also adequate supporting information must be available. Tony Greenham (2010), stated that to be effective green accounting needs green economics. He identified some relevant factors for green accounting. Himanshu Sekhar Rout (2010), studied about the issues and challenges about the green accounting. He suggested that to measure green accounting there is a need of area specific approach because there are several valuation methods and no particular method is perfect. Krishna Moorthy and Peter Yacob (2012), studied about the cost measures of green accounting. They collected data through questionnaire which is collected from the workers of the organisations. They collected the information related to the costs and expenses of environment. They stated that there are some lacking which still remain in green accounting process like green accounting personnel, lack of proper information support and also international standards for the approach. Nasir Zameer Qureshi et.al. (2012), in their research paper, they described the business strategy formation

procedure for the environment perspective, production of reports about required performance and finding skills requirements to compute, examine and assemble the requisite data. Stress has given in this research on generating the reports and their standards, for regulations. They analysed the complexities that are coming in the way of environmental accounting and reporting and concluded that for sustainable development of country, a well-defined predetermined environmental policy and also a proper follow up and proper accounting procedure is needed. [6-10] Radiah Othman, Haslinda Yusoff, Normahiran Yatim (2013), aimed at proposing a framework for green accounting reporting. They said that a planned framework is needed to accompany the government's blue-prints and facilitate companies to adopt GAR. This study contributed towards discipline in GAR from three ways. First, the development of the conceptual strategic Framework for GAR is the first attempt to develop a generic model focusing on potential strategies at various levels. Second, they found a way that how these strategies can be applied and integrated in the complete corporate strategies. Lastly, the framework shows the role of accounting function in supporting the economic strategy. Ileana & Andrea (2014), said that environmental costs is the total loss suffered by any organisation, voluntarily or as a result of the legal settlements, for the protection and/or reconditioning of the impact that the activity carried out by an economic entity exerts on the environment. They also added that green accounting provides development of the quality of the environmental reporting by means of the environmental costs that are based on the information related to the impact on the environment of production activities of an economic entity; it aids in growth in the competitive advantage of any organisation by means of the environmental management accounting and, respectively, of the specific communication, by publicizing, in the media, the efforts of reducing the environmental costs, which constitutes a capital of image favourable to the respective entity. [11-15]. Xinyang Kan, Qingjun Meng (2015), studied countermeasures and confusion regarding green accounting. They explored difficulties which are coming in the way of development of the green accounting and also

suggested some solutions for the same. They stated that the relevance towards application of green accounting adding the concern of the people. Because there are no clear green accounting measures, in the face of enterprise short-sighted about environmental problem lack of the monitoring of nation's government, there are no green accounting professionals, and the complexities in green accounting implementation. Jui-Che Tu and Hsieh-Shan Huang (2015), they found some drivers which causes costs and showed that every driver has its impacts on the production cost. They stressed on changing the product design for the sustainability of environment. They referred less use of resources for more production, for enhancement of competitiveness organisation should use green innovation, to redesign the product set clean production. Chivu (2015), mentioned that through the application of management policies for environmental expenses results in the decrease in long-term expenses and an increase in the benefit. Through pollution prevention practices the environmental costs can be reduced these practices can be like redesigning products, input materials substitution of input materials, operational level of maintenance improvement. Shavita Deshwal (2015), studied practices related to green accounting. She considered 50 companies for the study. She found out that there is a significant difference between manufacturing companies and non-manufacturing companies in relation to adoption of green practices. Archana T A (2017), identified some parameters adopted by corporations in India for the environmental reporting. This study aimed at finding the degree to which the corporations in India are practising voluntarily on environmental reporting and found out that there are no clear rules and regulations framed at any level for measuring the degree of compliance to environmental reporting. [16-21]. Manoj Yadav (2018), mentioned that common people of India should have awareness of the safety of environment for the development of green accounting. Andreas Lako (2018), showed some aspects for the urgency of green accounting. He mentioned that greed of the state, corporations and the public results in environmental crisis. Varsha Agarwal and Kalpaja L (2018), studied how much importance green accounting has for the

sustainability of the environment. They tried to understand the perceptions of the people regarding green accounting. They mentioned that govt should take strict actions regarding this and must make guidelines for the implications of green accounting. They also suggested that employees of the organisations need to be aware about how important the environmental reporting is.[22-25]. Muh Rum (2019), had made an effort to find out the cost and benefits of environmental audit and suggested that. Environmental auditing can help to find out the probable weaknesses of an organization's strategy. A properly prepared and conducted environmental audit will bring real benefits to an organization focused on the results. He also added that environmental accounting is more than a simple method of calculation representing the environmental costs - it is a system of planning and managing the environmental performance which should reflect the managerial style and commitment of the economic entity management to the environment. Shalini Singh and Anjana Singh (2019) studied the level of acknowledgement to which climate reporting is done regarding the environmental parameters in the organisations of India. They mentioned that there is no such type of policies have been framed and designed at any level which can confirm the environmental standards. Jundong Ma and Juntao Ma (2019), focused on the problems that comes in the way of application of the green accounting and suggested some solutions for the applications process, and the development of green accounting. Piyush M Modi (2019), analyzed the importance of green accounting in the country for the purpose of supporting the sustainable practice in business. He stated that green accounting is going through the primary stage in the country. He also added that if public of India is not going to be aware regarding the safety of the environment, development of green accounting is doubtful. Razeek Shamila, Wijayatunga Chameera, Sampath P.L.J.U (2019), in this research paper the authors stated a question that whether there is a difference in the profitability before implementing and after implementing the green accounting system in the company. The study provided an understanding on environmental reporting practices followed by Dialog Axiata and the green accounting has effect

on the profitability of Dialog Axiata. In this paper, Conceptual framework has been provided an idea about the dependent and the independent variables. Andreas Lako (2019), suggested a solution to immediately overcome the environmental crisis problem is the accounting profession must change at once. Accounting professionals need to reform and develop Green Conceptual Standards and Accounting Standards that are more environmentally friendly in an integrated manner. Bishawjit Chandra Deb, Shuvabrata Saha, Mominur Rahman (2020), this study intended to examine the impacts of green accounting practices bank performance. Results indicated that green investment is highly important to accelerate bank performance. The green initiatives and green activity management are also considerable to influence bank performance. The study also revealed that the better the green accounting practices, the higher the banks' performance. Mominur Rahman and Muhammad Shajib Rahman (2020), studied green accounting as a tool of environmental sustainability. They aimed creating awareness regarding the application of green accounting and to make organisations realise the need and importance for green reporting. They concluded that wide range of the people are in the favor of green reporting and its application in the organisations and also stated that government should provide directions and protocols regarding green reporting. C.Karthikeyan, Sonia Singh, Swarnalatha V, Lalithap (2020), this study triangulated on the core areas of conceptual permutations, to utilize the best available models. They studied about the status quo of green accounting challenges in India and mentioned that services regarding ecosystem need accounting procedure to get placed in the national accounts. Tolulope Joshua Ashaolu (2021), suggested that green accounting is applicable everywhere and for the effective promotion of green accounting, it must be included in accounting curriculum. [26-29].

2.1 Objectives

1. To explore the concept of green accounting.
2. To study the opinions towards green accounting.

2.2 Research Methodology

In this paper, the data has been collected through secondary sources. Various journals and research papers.

3. Discussions and Findings

Green accounting is a term that can be used for accounting of environment and natural resources. We cannot measure accurately that how much and in what proportion the industries are polluting the environment, because all industries are not supposed to pollute the environment at the same level. So, this makes very difficult to frame policies regarding the defilers. After seeing the situation of environment now-a-days, it can be said that it is a trend that cannot be avoided. This study signifies that:

1. There is no specific method for accounting the environment.
2. It is difficult to monetized the natural resources and human resources in a precise way.

The study also depicts that green accounting brings an increase in value as follows:

- ✓ Discovery of new opportunities in different fields
 - ✓ Resources can be recycled and those can be used in other types of activities.
 - ✓ Helps in increment of competitive advantage of the organization through the approach of environmental management accounting
- Decisional process pricing policy can be improved by creation of the optimum informational support.

The findings shows that the essentials of green accounting include:

- ✓ There should be new thought process for redesign, growth of environmental performance or the rules and regulations of green accounting.
- ✓ Enlarging corporate social responsibilities
- ✓ Production should be done with the measures of environmental protection.

It is also found that agriculture is an efficient way to promote green accounting. For promotion of green accounting, government needs to be proactive.

Based on the above, the impacts of green accounting on product design are illustrated in figure below:

There is an increase in the costs by adopting green accounting approach, but it is also necessary to change the product design. For the product redesign we need to take care of some points. These are:

Table: 1 How Green Accounting Effect Product Design

Financial Accounting	Green Accounting
Supervision and guidance	Promotion and education
1.Ministry of Finance: National Taxation Bureau 2.Financial Supervisory 3. Commission: Securities and Futures bureau 4. GAAP 5. GAAS 6. Users of Statement	1. Environmental Protection Administration Taiwan. 2. Ministry of the Environment, Japan. 3. US Environmental Protection Agency. 4. International Federation of Accountants (IFAC). 5. UN Division of Sustainable Development.
(Compelling)	(Not Compelling)
Financial information and statement	General disclosure statement of Green Accounting.
(Following of current laws)	(Formation of laws and regulation)
1. Avoidance of corporate social responsibilities. 2. Acquisition of maximum benefits of shareholders.	1. Internalization of external cost. 2. Reconstruction of product design.
(Result)	(Result)
1. Deteriorating environment. 2. Resource fighting of enterprises.	1. Economic sustainable. 2. Sustainability of enterprise.

- Product design should be improved in terms of environmental protection.
- Use technological innovation to increase the productivity and design the product with less resources so that the cost will be less.
- There is proper analysis of production at each stage of the production
- There is need to use the resources which are recyclable and renewable.

Conclusion

In recent years, it is witnessed that concern for the environmental degradation is rising, the deterioration of water, sound, air, soil erosion and deforestation, etc. also implementation of green accounting standards and measures is based on the moral values inherited in the entrepreneurs, and unaccompanied by any economic incentive and any legal restriction. Owing to the lack of respective regulations and the lack of government supervision, there are some barriers which are holding back its implementation. So, in order to solve those blockages or damages which are coming in the way of environmental development, respectively well-established law, interventions by the government, motivation to young accountants and proper training with respect to this are required for effective implementation. The production process should not ignore environmental production, and less pollution products.

References

Journals

- [1].Haripriya G S (1998). Forest resource accounting for the state of Maharashtra in India. *Development policy review*, vol. 16, no.2.
- [2].Haripriya G S (2000). Integrating forest resources into the system of national accounts in Maharashtra. *Environment and development economics*, vol. 5, no. 1-2.
- [3].Haripriya G S (2001). Accounting for the forest resources into the system of national accounts in Maharashtra. *Environment and resource economics*, vol. 19, no.1.
- [4].Verma M. (2002). Use of green accounting approach to assess the contribution of watershed values of the forestry sector to gross domestic product in Himachal Pradesh. <http://www.fao.org/DOCREP/ARTICLE/WFC/XII/0975-A1>.
- [5].Green Indian States Trust (GIST) (2005). Final report: green accounting for Indian States and Union Territories, Chennai.
- [6].Atkinson G and Haripriya G S (2006). Accounting for India's forest wealth, working paper 5, Chennai.
- [7].Akenbor, C. (2008). Green accounting in developing economized: An enrooted to gaining sustainable competitive advantage. *Benin journal of social sciences*.
- [8].Greenham, T. (2010). Green accounting: A conceptual framework.
- [9].Rout, H. S. (2010). Green accounting: Issues and challenges.
- [10].Moorthy, K. and Yacob, P. (2013). Green accounting: cost measures. *Open journal for accounting*, 2, 4-7.
- [11].Oathman, R., Yusoff, H. and Yatin, N. (2013). Strategic framework for green accounting and reporting (GAR). *Asia pacific management and business application*, 1(3), 182-200.
- [12].Deshwal, S. (2015). Green accounting and practices. *International journal of applied research*, 1(8): 683-684.
- [13].Kan, X. and Meng, Q. (2015). The confusion and countermeasures of green accounting in China. *Technology and investment*, 6, 127-131.
- [14].Jui-Che Tu and Huang, H. S. (2015). Analysis on the relationship between green accounting and green design for enterprises. www.mdpi.com/journal/sustainability.
- [15].Archana T. A. (2017). Green accounting and reporting among Indian corporates. *International journal of trend in scientific research and development*, vol. 1, issue-6.
- [16].Agarwal,V. and Kalpana L. (2018). A study on importance of green accounting. *International journal of advance research, ideas and innovations in technology*, vol.4, (5)
- [17].Yadav, M. (2018). Green accounting a review paper.
- [18].Lako, A. (2018). Green accounting
- [19].Modi, M. P. (2019). Objectives and importance of green accounting system in India. *International journal of trend in scientific research and development*, vol. 3, issue 6.
- [20].Lako, A. (2019). Conceptual framework of green accounting.
- [21].Lako, A. (2019). Towards green accounting 4.o.
- [22].Junding, Ma and Juntao Ma (2019). A research review of corporate green accounting information disclosure. *IOP Conference Series: Earth and environmental science*.

- [23].Singh, S., Singh, A., Arora, S. and Mittal, S. (2019). Revolution of green accounting: A conceptual review. 2nd International conference on power energy, environment and intelligent control.
- [24].Muh, R. and Lolo, N. (2019). Environmental green accounting and auditing practice. Research journal of finance and accounting, vol. 10, no. 8.
- [25].Shamila, R., Chameera, W. and Sampath P.L.J.U. (2019). Identification of relationship between green accounting and profitability: Case study of dialog.
- [26].Deb, C. B., Saha, S. and Rahman, M. (2020). Does green accounting practice affect bank performance? A study on listed banks of Dhaka stock exchange in Bangladesh. Pal Arch's journal of archeology of Egypt, 17(9).
- [27].Rahman, M. and Rahman, s. m. (2020). Green reporting as a toll of environmentally sustainability: some observations in the context of Bangladesh. International journal of management and accounting, 2(2), 31-37.
- [28].Karthikeyan, C., Singh, S., Prema, R. K. and Lalitha P. (2020). A philological analysis on green accounting conceptual permutations on evolutionary models. International journal of scientific and technology research, vol. 9, issue 04.
- [29].Sadiku, N. O. M., Ashaolu, J. T., Adekunle, S. S., and Musa, M.S. (2021). Green accounting: A primer. International journal of scientific advances, vol. 2, no. 1.