A Study on Green Accounting: A Way to Sustainable Development

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Abstract

Green accounting is a term used in the field of accounting which measures the environmental and natural resources accounting, which tends to incorporate the natural and environmental assets of the firm and it’s resources. It attempts to bring in the environmental costs of the firm into the financial statement of the operations of the firm. This results in making the businessmen understand their potential relationship between the economic goals which are of traditional in nature and the modern environmental goals. This ensures in weak sustainability being further transmitted into full and strong sustainability of the firm. This method helps the firm in promoting a sustainable future for the future generation and conserving the depleting natural resources. This method has gained popularity in the growing years due to the emerging environmental laws and corporate law which mandates such sanctions in the name of the Corporate Social Responsibilities. Thus by accounting for natural and environmental resources, the firm also increases the information inflow that is available to the firm for analyzing the firm’s policies which affect the firm both in the short run and the long run. Due to it being pushed by environmentalists, it is often viewed as a controversial practice by the firms, since depletion is already calculated in the form of depreciation of assets of the firm and in the form of depletion for companies which are
involved in extraction of natural resources.

**Key Words:** Environmental-friendly, sustainability, natural resources, depletion, green research and development.
1. Introduction

Green accounting also popularly called as environmental accounting is the accounting practice which incorporates the environmental costs, its impact and its consequences. It is the sum total of statistics that is closely connected with the financial aspect of the company having a long term impact on both economic and environmental policy of the organisation. It is concerned with undertaking social cost benefit analysis of several projects and activities of the company as well as the valuation of environmental goods and services produced. As a result, green accounting results in expanding knowledge about the cost of future pollution, addition to human capital stock. (Haripriya Gundimeda, 2005).

It is a attempted effort of the company to portray the nature of exhausted resources and costs rendered by the organisation in utilising them. Green method of accounting is all about transparency in accounts of the company in both money and physical units. Thus the general practice of green accounting involves identification, measurement and allocation of idle environmental resources in terms of environmental costs, integration of such costs into the firm’s business, identifying environment liabilities of the business and finally communication of the results to the shareholders and stakeholders of the company as financial statements (Alok Kumar Pramanik, 2002).

Green accounting can also used for the process of disclosure of environment related data, either audited or not, regarding the environmental risks and impacts, cost policies and liabilities. Corporate environmental protection policies include environmental reports initiatives taken the corporate. It’s adverse impact of it’s production process and product environment is measured in qualitative and quantitative terms. This impact report is necessary for sustainable growth since the report takes in the present, past and future costs for pollution control, reduction of toxicity and wastes from the industry, elimination of environmental costs and benefits and capital expenditure incurred in both products and process. (Qureshi, 2016)

The social responsibility regarding the environment is core subject of discussion in today’s corporate world. This responsibility incorporates green method of accounting. The basic objective of such accounting practice is to suggest and collaborate all the environmental related inflows such as stocks of the tangible assets, resources utilised by company , total stock reserve related to environmental issues and changes in minimizing the environmental impacts through improved and innovative product and product design which cause no harm to the environment so as to preserve and provide a scope for sustainable development for the future generations. This ultimately results in identifying environmental costs as a part of Gross Domestic Product (GDP) of the firm which is necessary to compensate for the negative impacts by the corporate firms on economic growth of the nation. (Nasir Zameer Quershi, 2012)
The current green concept is to improve the environment, restore the ecology and maintain sustainable operation of environmental resources for future generations. Hence this type of accounting can be called a environment oriented as the concept carries the same importance in product design and develop process. However simple adherence to environmental reporting is insufficient to meet the disclose expectations. Such reports are to be prepared in an innovative manner so as to create a scope of improvement. Internet reporting is one of the popular method of reporting. The information for such reports can be collected from environmental policies, impacts, management systems, targets and performance disclosure. (Malarvizhi.P, 2008). In this context, the aim of the present study is to study the theoretical background of green accounting and it’s benefits and it’s limitations.

The Conceptual Framework of Green Accounting and Reporting

Green accounting method is an integrated economic and environmental method of accounting. It describes the environmental analysis of the business, producing the desired level of performance and ultimately in the process, analyzing the required skills to measure and compile the data. Such reports are in the standards of corporate firm and in regulatory purpose standards. Green accounting arrival in developing countries is a great help for the economy as it creates awareness about environmental damages, it’s protection and development of the environment. It serves the purpose of educating the corporate firms and the public the role played by environment in the development of the economy. It results in firms being obligated to spend amount for the use of resources and substances which may or may not have damaged the environment. Through green accounting, corporate firms and businesses set aside an amount for environmental pollution control and ecosystem balance. Thus firms after the advent of green accounting prepare separate environmental policies, take required steps to control and minimize the pollution, comply with the related rules and regulations set by the government and finally, mention adequate details about environmental analysis in the annual reports and statements. Difference in reports and statements of the firm may arise due to different environmental accounting method used by the accountant, social values of the firm in applicable scenario and it’s based assumptions, economic values and lack of reliable industrial related data. Ultimately green accounting results in incurring less expenditure on producing more as less input is wasted and technological innovations increase the productivity of the input resources, preventing pollution by shifting the treatment plans to control the limits of pollution and designing the products in environment friendly manner which ultimately results in cleaner production of the products, reducing the impact on environment from the production line as a result of designing products without toxicity and pollution of the environment, improving the environment by designing environment friendly and environment maintenance. As a result of practicing green method of accounting, there is economic sustainable development and sustainability of enterprises. The acceptance of
green accounting as a Generally Accepted Accounting Principles (GAAP) is a path laid for sustainable development for the future generations.

Thus the process of green accounting is; Identification of the environmental reporting parameters of the firm – Defining the environmental reporting parameter of the firm – Specifying the environmental targets to be achieved – Developing the environment performance indicators – Measuring the environmental performance results – and finally reporting the environmental performance results.

1. The first stage in green accounting is identification of the environmental reporting parameters of the firm. The firm in the process, identifies reporting parameters such as environmental safety, public health, environmental protection, environmental energy conservation, scopes of corporate sustainability, waste management and tapping the sources of renewable energy such as wind, solar and hydro power.

2. The second stage is defining what are the environmental parameters of the firm. The firm in this process clearly defines the operational means of each parameters and identifies on what basics the firm wants to measure each of the parameters in the long run.

3. The third stage of process deals with the organisation formulating the environmental targets to be achieved in both short run and long run. The organisation ensures that both the short and long term are mutually interlinked.

4. The fourth stage of green accounting is about developing the environmental performance indicators such as environmental frameworks, health and safety provision standards, energy conservation practices and waste management practices to be undertaken and followed by the firm.

5. The fifth stage deals with measuring the environmental performance indicators which may be either qualitative or quantitative, for instance environmental policy frameworks needs to be measured quantitatively and waste management framework needs to be measured quantitatively.

6. The final stage of this method of accounting is reporting the environmental performance results in the annual accounts of the firm and integrate it with that of the financial performance in order to show the environmental impact on financial performance of the firm.

**Scope of Green Accounting**

1. Environment expenditure and costs
   The expenses and costs related to environmental issues such as production costs, research and development expenditures which are always incurred pre-launch of a product are for ensuring the protection of the environment. Some of the other environmental expenditures are capital investment, research and development cost, planning and administration cost, plant operating cost, cost of remedial measures and finally production plant recovery measures.

2. Capitalization of environmental expenditures
This is justified if the cost of environmental expenditures extends the life of the company or increases the capacity or the efficiency of properties owned by the firm, cost incurred in renovating the property and cost incurred in preparing the property at the time of sale of the asset. Such costs are compared with that of those at the time of acquisition.

3. Environmental Liabilities
   The company is obligated by the legislations to pay for further to indemnify the environmental damages that has occurred in the past, events arising out of company’s negligence and performance. Such expenditure may also be paid to compensate a third party that has suffered from the environmental damages caused by the company. Such liabilities maybe be either quantifiable one or non-quantifiable one. The latter one has no scope to be measured accurately and project it in the balance sheet of the firm.

4. Environmental incomes / benefits
   It is measured in physical and monetary values. It is the sum total of the benefits received by the firm from prevention, reduction and avoidance of the environmental aspects, it’s impact, removal of such impact through the firm’s actions, restoration followed after the occurrence of a industrial accident.

5. Environmental Assets
   These assets are in the possession of the firm as a result of environmental regulations and voluntarily activities of the firm. Thee assets are man made assets such as pollution control bonds and environmental protection equipments. All such assets are either current assets or fixed assets.

**Limitations of Green Accounting**

Since there is no specific standard followed for green accounting, comparison between two firms or two different countries is highly impossible. The input for green accounting is not easy to calculate because the cost and it’s benefits received is in qualitative units. Large scale business and governmental organisation do not adequately manage and record energy and material cost, waste management. Thus it only considers the cost of such resources to the company and not to the society as such. The every nature of green accounting being integrated with financial accounting, management accounting, cost accounting, tax accounting and national accounting is a huge drawback.

**Green Accounting Practices in India**

Green accounting became a practice in India long before the enactment of the Companies Act, 2013. While the industrial licensing process has been removed for practical practices and the environmental clearance from state government has taken a central stage. As per the Indian Constitution, Article 51A of directive principles of state policies says that it the duty of every citizen of India to protect and improve natural environment, which includes forests, lakes, rivers...
and wildlife. This fundamental duty is further backed up a number of legislations; Factories Act, 1948; Prevention and control of Pollution Act, 1974; Forest (Conservation) Act, 1980; Air (Prevention and control of Pollution) Act, 1981; Environment (Protection) Act, 1986; Motor Vehicle Act, 1991; Public Liability Insurance Act, 1991; Indian Penal Code, 1860; Indian Fisheries Act, 1987; Atomic energy Act, 1962; Radiation Protection Rules, 1971; The Chemical Weapons Convention Act, 2002 and Wildlife Protection Act, 1972. Moreover the Ministry of Environment and Forests at both state and central level issue guidelines to existing and new projects to obtain environmental and anti pollution cleanses before the commencement of the business.

However, the expected Practices is far from reality. A very few firms in India actually provide adequate information about the environmental issue. Despite the awareness about green accounting, companies provide inadequate information in their annual reports. The practice of green accounting hasn’t been socially accepted by the society. Companies feel it a burden on the profits of the firm rather than it being beneficial to the society.

2. **Materials and Methods**

The date for this research paper was collected from secondary sources such as research papers, journals, online article, magazines and paper articles.

**Null Hypothesis Ho:** There is no significant difference between green accounting and financial accounting benefits.

**Alternate Hypothesis H1:** There is significant difference between green accounting benefits and financial accounting benefits.

3. **Conclusion**

Environmental accounting is in the initial stage of global acceptance. Companies and business firms more or less comply with the governmental rules and regulation. People are to be made aware about the environmental safety and protection and environmental development in a sustainable manner so as to ensure that the future generation enjoy the seeds laid by the past. With the increasing rate of global warming, environmental policies such as steps to reduce the pollution and research of new way to procure environment friendly products. For a sustainable economic development, a well defined environmental policies are to be undertaken and followed in a proper systematic manner.

**References**


