

ADVANTAGES OF IMPLEMENTING ENVIRONMENTAL ACCOUNTING WITHIN AN ECONOMIC ENTITY

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Abstract:

The information offered by environmental accounting can be used as a tool for taking decisions that will impact both financial performance and the environment. The purpose of this paper is to highlight the function of environmental accounting within an economic entity.

Key words: *environmental accounting, environmental costs, environmental taxation*

JEL classification: *M41*

1. Introduction

Because concern about environmental protection has become a global issue, managers have to focus their attention on creating biodegradable products that can be recycled. Also they need to have more control over air pollution, to reduce as much as possible the energy consumption, and exploit natural resources in a wise way. Managers have to take into consideration costs and damage for not respecting the law concerning the environment. Therefore, they ask for information from finance and accounting department, information about revenues and expenses, dashboard, etc. Information regarding economy and accounting has to be complex, objective, relevant, has to be provided regularly in such a way that it permits fast and accurate decision making with a low cost.

2. Environmental financial accounting

Environmental accounting aims to draw attention to expenses and revenues with environmental protection, as well as actions taken to protect the environment on a financial level. Environmental accounting is a managerial tool used for many purposes, such as: improving performances in relation with the environment, inventory and controlling costs, more efficient technologies with less pollution, nonpolluting products, etc. Environmental accounting takes into consideration all the costs of a product, including the environmental costs of an economic entity. Implementing environmental accounting assumes emphasizing distinct environmental costs, provisions for risks and afferent costs, specific information in explanatory notes (financial report's annotation), etc. Environmental accounting can be used to determine costs of projects regarding biodiversity, human health and aesthetic values. Another definition of environmental accounting states that it is a system which gives information regarding the decrease of natural elements of the organization's object of activity and the actions taken to avoid this decreasing. According to accounting regulations in compliance with the European Directives, no. 3055/2009, in order to underline environmental protection expenses it has to be used the account 652 "Environmental protection expenses" which registers in debit environmental taxation paid, acquisition of gas emission with green house effect certificates, 3% representing the entity's contribution to environmental fund, etc. Ferrous waste is registered in accounting by the account 346 "Waste products" corresponding to revenues account 711 "Other revenues from stocks costs (revenues associated with the costs of the completed production)".

3. Environmental taxation in Romania

Taxation, through taxes and duties, can encourage the promotion of clean technology; can represent a fighting instrument against environmental pollution. The environmental fund is a financial tool used for sustaining and developing projects for environmental protection, according to current regulations. In Romania were issued a series of regulations regarding the establishment and payment of Environmental Fund. As a consequence, according to Ordinance 196/2005, the revenues for Environmental Fund are made up of: a contribution of 3% from revenues from ferrous and non-ferrous discard, taxes for gas emissions in the atmosphere, taxes from economic agents who use new fields to deposit recyclable waste, within the limits stated in the regulation; a fee of 1 lei/ kg on the weight of the packaging materials placed on the national market by the producers and importers of packed goods and packaging; a 2% contribution from the cost of substances classified as being dangerous; fees for issuing permits, agreements and environmental authorizations; interest and penalties from environmental fund debtors. According to the Romanian Tax Code, no. 571/2003, for delivering waste and secondary raw materials resulted from waste recycling is applied the reverse taxation. The supplier is obliged to write on the issued invoices the mention “*reverse taxation*” without registering the afferent tax, and the beneficiary will write down the afferent tax and will emphasize it in VAT document, not only as a collected tax but also as a deductible tax. For operations subject to measures of tax simplification, the tax payment is not made between supplier and customer.

4. The role of environmental accounting

Green accounting (this term is used since 1980) was defined as a method of measuring (in economic terms) the performance of any type of organization in relation to the environment. The advantages that an economic entity can benefit when implementing green accounting, are presented in figure 1.

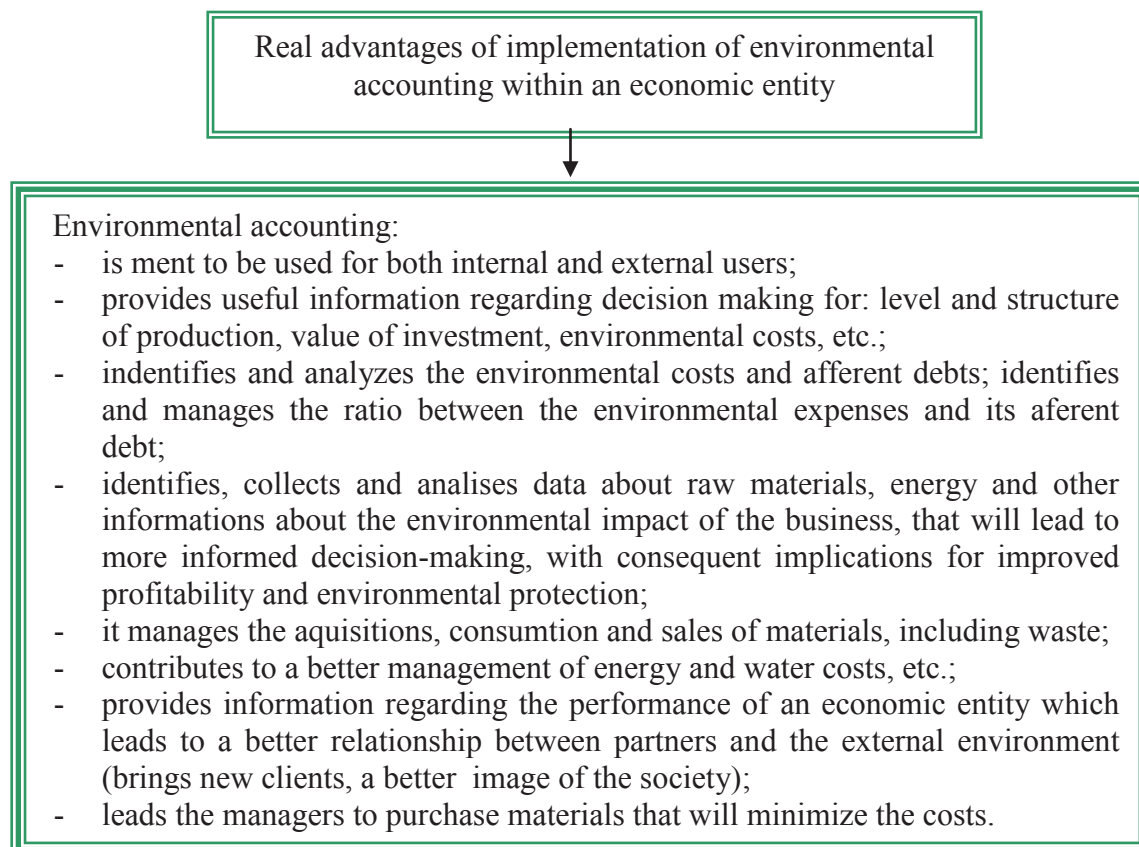


Fig.1. Role of environmental accounting

Environmental accounting plays an important role in providing data regarding the environment impact for various internal and external users. Eco-accounting helps to minimize costs and the negative impact on the environment, presenting facts about: the supply process, from an environmental perspective; the product and the responsibility of the producer; the source of information for managerial activities about: product and design of project, distribution and control costs, supply process, pricing policy etc.; informing the organization about the effects of their activity on the environment and population; supporting the process of decision-making regarding the action plan for protecting the environment.

Environmental accounting ensures the sustainable development of the entity's activity, the analysis of the costs and the benefits generated by the impact of the environment on the activity, the development of the practices and policies concerning the control of pollution, the selection of the materials that ensure the minimizing of the costs, the research for the possible alternatives concerning recycling. Environmental accounting is used in order to present the social and environmental responsibility as environmental costs (Caraiani, 2007). Environmental accounting is not just a simple reflection of the environmental costs in the financial situations, but is an effective information system on the degree of thinning of natural elements caused by business activities (Leotina Bețianu, 2008). According to Paul Bailey, Senior Vice President in environmental consulting, environmental accounting is a useful modification of the life cycle's costs. The life cycle of costs was developed in the '60 s and '70 s in order to reflect the increasing costs of the systems, including the labor force and the costs of energy. In addition to the costs of the life cycle, environmental accounting includes the control of pollution and the costs of waste management.

5. A short presentation of environmental costs

The main objective of an economic entity's manager is represented by analysis of its efficiency that is the analysis of the costs in comparison to the advantages that can be obtained. Concerning the environmental protection there can be costs that cannot be measured concretely and which raise some issues concerning the evaluation of the efficiency. From the diverse analyses that took place (Stoian M, 2003) resulted a categorization of the potential costs into 4 categories, which are: damage costs, costs of diversion, planning and supervision costs and cost avoidance and removal.

Environmental expenses include costs incurred to conduct surveillance activities and environmental concerns and those that prevent or repair any caused damage. The total costs for environmental protection are composed by:

Investments made for environmental protection which includes new or already existing tangible goods bought from third parties or produced for personal use, having a life cycle longer than a year and aiming at protecting the environment. These include also the tangible assets such as land, additions, renovations and improvements that increase the life cycle or the capacity of the equipments.

Current operating expenses (exploiting current expenses), maintenance and acquisition of some environmental services, including internal current expenses (for own activities) and external current expenses (for activities bought from a third entity). Taking into account these environmental expenses, their identification and the precise (clear) separation from the other expenses of exploitation registered by an economic entity represents a pretty difficult activity for the professional accountants. This difficulty is given also by the absence of a set of accounting rules concerning the environment. The recommendation 453/2001 issued by the European Commission clarifies the notion of "environmental expenses" and the accounting treatment of these, mentioning also the way of presenting the financial aspects connected to the environment. In the precise emphasize and the separate analysis of the environmental

costs is interested not only the entity's management, but also the external partners – the business environment. The detailed information concerning the environment, more precisely the environmental costs, is usually presented in the explanatory notes in the case of the financial statement and less in the case of the balance sheet or the income statement.

According to a report from March 2000 (Developing an Environmental Accounting System- Study Group for Developing a System for Environmental Accounting Environment Agency, Japan) – “environmental costs refer to those investments and environmental maintenance expenses which are made in order to minimize the impacts that business can have upon the environment”. According to the mentioned report, the classification of the environmental costs can be done as following:

Costs for the control of the impact that business has upon the environment (air and water pollution prevention costs, costs to prevent the noise, vibrations, odors, costs to prevent landslides or other costs to prevent pollution).

Management activity's costs (costs for the development and application of an environmental management system, costs for educating the employees about the environment protection, costs of supervising and measuring the impact upon the environment, the measurement of the chemical substances which are evacuated).

Development costs (costs for designing new products with respect to the environment).

Costs of social activities (costs for the protection of nature, reforestation, of improving the ecological landscapes, supporting several local activities, organizing seminars and other social activities).

Costs representing damage (costs for soil remediation, sanctions, penalties, litigations etc).

6. The SWOT analysis of the organization of environmental accounting

After an empiric Romanian study realized within 10 enterprises in the city of Brasov, concerning the level of knowledge and applicability of the environmental accounting and its correspondent legislation resulted a series of conclusions that could be interpreted as the strengths and weaknesses of the environmental accounting. In the table one are presented the strengths and the weaknesses, but also the opportunities and threats of the environmental accounting at the level of the economic entities whose activities present an impact upon the environment.

Table 1 SWOT Analysis

STRENGTHS	WEAKNESSES
- the economic entities are interested in getting involved in activities concerning the environment; - it is a current field which has a special dynamics; - the selective collection of the waste, the prevention of the pollution could create financial resources for the economic entities; - there is a strong competition on the cleanliness (sanitation) services market.	- the manager does not understand the importance of the environmental accounting yet; - there are untrained personnel in this field of environmental accounting; - the personnel for the financial - accounting department does not have enough information about the environmental accounting, does not know how the aspects connected to the environment reflect in the environmental accounting and what impact they have upon the economic entity and environmental politics; - there is not a system concerning the

	environmental accounting which is to be applied at economic entity's level; the technologies that are used to recycle and to take value from waste or to prevent pollution are old.
OPPORTUNITIES	THREATS
- the entire legislation of the European Union concerning the environmental accounting is applicable also in Romania so it can be applied also at the level of economic entities; - the perspective of the need of a greater number of workers in the environmental accounting in a very coming future – recycling, capitalization, and remediation; - the possibilities to bring new and advanced technologies and equipments; - the possibility to attract foreign investments.	- there are several difficulties in introducing an information system; - is needed a significant budget in order to apply environmental accounting and the benefits are not obtained immediately, which attracts a resistance of the economic entity; - the correspondent legislation is very little and treated tangentially.

7. Conclusions

By elaborating some environmental policies and using an environmental accounting, the entities can benefit from several advantages such as: the stricter control of the environmental costs, knowing at every moment in time which are the environmental performances, gaining more customers and therefore earning greater revenues on long term, the improvement of their reputation (image), the access to new markets (but it is possible to generate also some other disadvantages: the high costs of green investments). By identifying, outlining and controlling the costs and the revenues connected to the environment, the manager of an economic entity can identify real methods of saving money and improving the external image. The information provided by the environmental accounting, those concerning the environmental costs can help the managerial team (board) in substantiating the decisions connected to the product design, production process, waste management, investments and so on. The information given by the environmental accounting, the analysis of the relation established between the costs and the benefits help the managers of economic entities to base the decisions made concerning environment and its protection, to take actions in order to prevent the environmental damage and to help to evaluate the environmental costs.

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