

Chapter 22

Environmental accounting concepts and their relation to the sustainability paradigm

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ABSTRACT

This article aims to demonstrate the perception of accounting professionals in regarding the level of

knowledge of environmental accounting and conceptualize it. Environmental issues are increasingly strong in everyday life, so companies and accountants use environmental accounting as their accounting management and control system, including environmental information in their statements. With the market growing and becoming more competitive, societies generally want organizations that are more environmentally responsible, so that companies keep the idea of environmental preservation. And this is where the role of the accountant comes in, helping the company to fulfill its social role, respecting the environmental legislation and the environment in which it lives. Nowadays it becomes a very important subject for companies, because, besides the rules of the legislation, they suffer pressure from environmental groups and associations. Companies are already thinking about the rationalization side of their natural resources and are still investing in new and better technologies that are cleaner and produce more environmentally friendly goods. Environmental accounting can be considered a great tool to assist decision-making processes by providing relevant information. The care taken by companies for the environment can be an important strategy for the development of the organization, seeking satisfaction of customers, employees and other people who use the company's service in relation to the level of products and services provided.

Keywords: Environmental Accounting, Environmental management, Sustainability.

1 INTRODUCTION

Given society's concerns about the environment, companies are practically obliging themselves to provide information that helps in their parts related to the environment, and this is not only good for society, but also for the entity, because it shows that it is working with transparency and thus adopting a policy of control, preservation and environmental recovery. The implementation of environmental management can help companies to control or even health the environmental impacts caused in the course of their productive activities, considering that this implementation will be important, this management can be carried out with the support of all departments of the company, with an interaction between administration and production to ensure the effectiveness of the information.

There are numerous advantages brought by Environmental Accounting, which are little known by organizations: process management involving quality assessment of all activities performed by the

company, results management, which assesses whether the results caused by the company are positively or negatively impacting the sustainability management environment, analyzing the perception of the environment in relation to the impacts generated in it, management of environmental plan including strategies and organizing the entire operation of the company.

When environmental accounting is conceptualized in most situations, there is the connotation of fauna, flora and other concepts related to nature, however, environmental accounting is related to the whole environment in which the company and society are, whether social, organizational and also related to nature. It is a new, audacious accounting, which worries far beyond numbers and results, wants to inform the environment in which the company is how it is organized, what it causes to generate profits or losses. Social responsibility has evidence with the results. In order to obtain information in the accounting environment, related to this accounting also focused on the environment, the development of work is justified and leads to the following problem: are accountants seeking continued education to meet the public and accounting trends?

Analyzing market trends, the requirements of companies and consumers, the general objective of this research is to verify the perception of accounting professionals in the city of Alta Floresta - MT, in relation to environmental accounting. With all this information, the following hypotheses are made: accountants are well-told about the constant growth that the business market is organizing in order to serve a social audience in addition to simple demonstrations; environmental accounting comes with new information and requirements; accounting professionals are asweding to this new social scenario.

2 ENVIRONMENTAL ACCOUNTING

Accounting, one of the oldest sciences in the world, came with the intention of increasing human wealth, that is, heritage.

Measurement, calculation and disclosure of information on assets, rights and obligations are what are intended for accounting. An indispensable tool for companies for many years contributes to the calculation of business results. The accounting already known portrays another accounting point of view today, being a more audacious accounting, which is concerned with informing its users issues related to responsibility to society and the environment.

Thus, an accounting more adapted, focused on the minutiae experienced in the routines of companies, involving internal and external factors, with regard to the environment. Environmental accounting has emerged more intensely in recent times due to the insertion of environmental standards and laws increasingly within business activities. Today accounting is something more than a simple financial statement, it is a social benefit. Users are more demanding, the market more competitive and, therefore, will be adhering to a new accounting era.

Environmental accounting can be defined as a study of environmental heritage, assets, rights and environmental obligations of entities. Its objective is to provide its users, internal and external information about environmental events that cause changes in the asset situation, as well as to perform their identification, measurement and evidence (COSTA, 2012, p. 29)

As environmental accounting is a social science, it has proven important in the environmental and social management of companies. Regarding the importance of environmental accounting, Costa (2012, p. 15) says that:

Environmental accounting has grown of importance for companies in general because the availability and/or scarcity of natural resources and environmental pollution have become the subject of economic, political and social debate around the world. Progress is continuously being made to protect the environment and reduce, prevent or mitigate the effects of pollution.

Besides being a simple sophistication, environmental accounting is the evolution in environmental history, information that meets in addition to profits or losses of the period, evidences the relationship between the company and the environment, as described by Tinoco (2011, p. 144), "Environmental Accounting, constitutes one of the aspects of Accounting. It particularly serves to highlight and mirror the relationship of companies."

With the awareness of the population in relation to the environment, the human being gradually seeks to reverse the negative impacts of anthropic action on the planet. With companies it is no different, because they are responsible for the emission of gases and other elements that harm the environment. The participants of society, they must reduce the emission of pollutants and adapt to the new global reality.

Following all this change in society, accounting exercises its function of social science and develops, thus emerging environmental accounting, which is the record of environmental heritage, which is accompanied by environmental assets and liabilities.

Environmental Assets are the assets and rights owned by companies, which have the capacity to generate economic benefit destined or derived from environmental activities, and may be in the form of working capital or fixed capital. Regarding environmental assets, Kraemer (2011, p. 154) states that:

Environmental assets are the assets acquired by the company that have as purpose control, preservation and recovery of the environment, if environmental expenses can be met in the criteria of recognition of an Asset, should be classified as such. The benefits may come through increasing capacity or improving the efficiency or safety of other assets belonging to the company, reducing or preventing environmental contamination that should occur as a result of future operations, or through environmental conservation.

Environmental assets are in the company's assets, and are destined for environmental activities. These are related to the applicability in technologies, raw materials and processes of precaution, reduction or elimination of pollutants or that present threats to the environment, to public health in a figure that generates economic benefits and valorization of enterprises. It can be cited as environmental assets the fixed assets; acquisition in items that reduce waste during production and inventories; production, storage processes to reduce or control environmental consequences.

Environmental Liabilities are all obligations acquired voluntarily or unintentionally that are intended in applications and actions of control, preservation and recovery of the environment and thus causing, as counterpart, an Asset or Environmental Cost.

Environmental liabilities come from environmental risks and uncertainties, which can be characterized as impacts of business decisions made for economic purposes and the estimated potential loss of benefits of the operation caused by environmental causes. For Kraemer (2011, p. 158)

An Environmental Liability should be recognized when there is an obligation on the part of the company that has incur an environmental cost not yet disbursed, provided that it meets the recognition criterion as an obligation. This type of liability is defined as a present obligation of the company, arising from past events.

Environmental Liabilities can be classified as normal and abnormal, being those respectively those that are within the possibilities foreseen by the company asis the case of tires, which, after being used, are discarded to the environment, in many situations, are lodgings of insects causing diseases or are even burned causing great impact to the environment. However, when manufacturing and selling the tires, it is already known of the possibility of occurrences of these negative impacts, this is therefore a normal liability. Abnormal liabilities are those that arise from the eventuality, usually caused by road accidents, such as the oil leak of an oil company, whose company is aware of the possibility, however, is not a common event, and generally companies avoid all forms of occurrences of these effects considered extremely negative, in some cases, the company can even temporarily or definitely paralyze its activities, as the size of the impact caused can be extremely considerable.

Like environmental assets and liabilities, environmental revenues and expenses are also used, and are similar to the assets and liabilities related to the company's environmental issues. Environmental revenues can be all those that somehow benefit the company by generating environmental resources, one can cite as an example: provision of services in environmental management, sale of products prepared from recycling, use of leftovers from the production process, reducing future expenses. Environmental expenses are those that represent in a certain way effort to generate revenue, so it can be mentioned: expenses related to environmental preservation, recovery of environmental damage, environmental consulting, fines and environmental indemnities, among others.

Environmental expenses are all expenses incurred in the period obtained by the company and that have affinity with the environment and that are not related to the productive activity of the company. All financial expenses related to environmental recovery and preservation are considered environmental expenses.

Companies are increasingly asparated to the new scenario in relation to environmental preservation, in search of a quality strategy to take care of the environment, but without forgetting the environmental costs generated, with emphasis on manufacturing costs.

Most of the products that are manufactured dispense pollutants in the air, therefore, organizations are investing in machinery, filters and other means aimed at reducing pollution, thus generating an environmental expense.

3 ENVIRONMENTAL MANAGEMENT, SOCIAL RESPONSIBILITY AND SUSTAINABILITY

Environmental management is a social science that studies and systematizes the practices used to manage all processes of the organization, aiming to minimize and organize activities and behavior changes so that human attitudes towards the environment can generate the least possible impact. According to Kraemer (2011, p. 89):

Environmental management is the system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources to develop, implement, achieve, critically 255. This is what the company does to minimize or eliminate the negative effects caused in the environment by its activities.

Few companies are concerned with environmental management, for the most part, are focused on profit management, however, Kraemer (2011, p.89) states that:

Several business organizations are increasingly concerned with achieving and demonstrating a more satisfactory performance in relation to the environment. Thus, environmental management has been configured as one of the most important related activities in any enterprise.

Management in any respect has the connotation of organization, administration, environmental management is no different, because it is concerned with managing all the processes that the company performs, aiming to achieve product quality and the environment.

In the midst of so many events, it is perceived that environmental management and social responsibility are extremely important for the management of a company, and can even create competitive conditions and even improve its image before society.

For Dias (2011, p. 104), "environmental management is the set of organizational responsibilities, procedures, processes and means that are adopted to implement an environmental policy in a given company or production unit".

The level of competitiveness of a company depends on a set of factors, varied and complex, which interrelate and are mutually dependent, such as: costs, quality of products and services, level of quality control, human capital, technology and innovation capacity. It happens that in recent years environmental management has increasingly acquired a prominent position in terms of competitiveness, due to the benefits it brings to the production process as a whole and some factors in particular that are enhanced. (DIAS, 2011, p. 63).

Environmental management is a system that includes an organizational structure, planning, responsibilities, processes and actions that develop, improve and try to achieve a goal to minimize the negative effects caused to the environment that were caused by the performance of business activities. This is a way found by companies internally or externally to achieve the desired goal to improve environmental

quality, which consists of a set of actions aimed at controlling the impacts caused to the environment from activities developed by organizations.

It is used by companies the SGA (Environmental Management System), which are management tools that enable companies of any type or dimension to control impacts of their activities on the environment, and can be considered a set of procedures to manage an organization. The SGA aims to plan activities developed by companies, in order to eliminate or minimize impacts on the environment, through preventive acts.

According to Tachizawa (2011, p. 106) The main guidelines of the environmental management model are:

Establish an appropriate environmental policy for hydroelectric power; identify the environmental aspects present in demanding or planning activities, products and services; identify the relevant legal requirements; be always up-to-date with new technologies and environmental legislation; adapt to the ecological-economic market; among others.

The world's biggest challenge is to make the business market protect and improve the environment. In the current economic context, a good attitude of people is shown, therefore focused on the possibility of interacting with companies, so that they are ethical, have a good image in the economic and financial market and still take into account the environment and treat it in an ecologically responsible way, then sustainability enters as a tool to help in the best development of the current generation, without compromising the next ones.

Sustainability is a term used to define human actions and activities that aim to meet the current needs of human beings, without compromising the future of the next economically and materially and without harming the environment, using natural resources intelligently so that they remain in the future. By following these parameters, humanity can ensure sustainable development through the harmonization between economic development, environmental preservation, quality of life and rational use of nature's resources.

Information obtained on a daily life points out that organizations are increasingly caring about environmental and ecological preservation, because economic results depend on business decisions taking into account that environmental processes are growing more and more worldwide, that customers and communities are smarter and thus valuing environmental protection and even demands, that is, the revenues of companies, are under pressure in relation to the environment, because consumers choose those ecologically correct organizations.

4 SOCIAL BALANCE SHEET

Social Balance Sheet is a set of information about actions carried out by the company for the benefit of employees, shareholders, communities and others, published annually to demonstrate its corporate social responsibility, this aims to demonstrate the economic, environmental and social reality of an entity, through

measurement, evaluation and dissemination. Its function is to entrust accounting, economic, financial, social and quality information that meets the needs of those who need it.

The social balance is a tool of accountability with the environment, it demonstrates what the company offers employees, society and all the context in which it is involved. It is not a mandatory demonstration, however, many companies have already included it in their annual publications.

In the social balance sheet, the company shows what it has done for society, giving transparency in the activities developed in order to improve the quality of life of all, environmental preservation and still shows the organization's concern with the planet, useful information is provided for decision-making related to social programs developed by the organization. In its process of realization, it is counted on the participation of employees in the choices of social projects, thus having an interaction between managers and the functional body, according to Reis (2012, p. 23):

The social balance sheet is an instrument that gathers a set of information on the social and non-compulsory activities that a company carries out with the aim of generating greater well-being with all stakeholders – employees, community, partners and others – and society with a whole. Information and indicators are measured and presented in the form of a report. As in a balance sheet, it becomes a document that allows a continuous improvement of the actions performed.

Thus, to encourage companies in the publication of the social balance sheet, the Legislative Assemblies of several states of Brazil offer awards to companies and accountants. Gradually, companies realize that social information is beneficial even to attract customers who are concerned about the environment and seek companies with this goal to do business.

Companies that are visionary in the future are already suiting for a solid publication with information in addition to profits or losses, are data that help any segment within the company's system, which gives complete and comparative information of its operational and productive flow and all those involved in the process.

5 ENVIRONMENTAL ACCOUNTING - ECOLOGICAL ICMS

The Ecological ICMS (tax on the circulation of goods and services) is a public policy tool that allows municipalities access to financial resources that are collected by states via ICMS, in order to house territories of conservation units or even areas protected by the Federal, State and Municipal spheres that can still supply neighboring municipalities.

Twenty-four states have already approved or are debating their legislation on ecological ICMS. The State of Mato Grosso is on the list of approved, having its approval through Law No. 73, of December 7, 2000.

6 ENVIRONMENTAL ACCOUNTING - ISO 14000

The NBR ISO 14000 standard is a set of standards that help in environmental management for companies. These standards were created by the International Organization for Standardization (ISO).

ISO 14000 standards are a family of standards that seek to establish tools and systems for the environmental administration of an organization. They seek standardization of some key analysis tools, such as environmental auditing and life cycle analysis. (DIAS, 2011, p. 105).

These standards are designed to help companies control the impacts they have on the environment. Many companies use natural resources, generate pollution or cause environmental damage through their production processes. Following ISO 14000 standards, these companies can significantly reduce damage to the environment.

From the moment companies follow the standards and implement the processes indicated, they can obtain the ISO 14000 Certificate. The certificate is important because it indicates that the organization is fulfilling environmental responsibility, thus valuing its products and brand.

The NBR ISO 14000 standard, even being detailed and with many requirements in the procedures to be adopted for the implementation of an environmental management system (EMS), does not impose goals to be met and can be adopted by any type of companies and any size.

To achieve and maintain the ISO 14000 certificate, the company needs to adapt to the country's environmental legislation, qualify its employees to follow the standards, identify the environmental impacts it is causing, and apply procedures to reduce damage to the environment.

7 FINAL CONSIDERATIONS

The work developed over the last few months aims to provide answers regarding the perception of accounting professionals of Alta Floresta - MT in relation to environmental accounting, what degree of knowledge, identify means of updates among other points described in the article.

Based on the data obtained with the questionnaires distributed and answered by the professionals, it is possible to verify that most do not have satisfactory knowledge of environmental accounting and some have only heard by means of communication without many deepening.

With the low level of knowledge of professionals, it is not possible to use tools to minimize or solve any problems that may be. To be able to solve or at least mitigate problems, there is a need for commitment, dedication and many studies by professionals to be able to provide accurate information to customers and especially the business sector so that, together, they can discuss the current situation of the environment and, most importantly, assign the responsibilities of each one in this process.

Environmental accounting is increasingly entering the world of companies, because they are in one way or another trying to adapt to environmental issues and what their responsibility is, for this reason, companies are disclosed in a special way and thus passing transparency to society, but, as stated above,

organizations are still in such a position and not all companies care about the current environmental situation.

In relation to the subject addressed, one of the ways found to effectively meet the purpose of improving the environment was the implementation of accounting in the Environmental Management System. It is understood that environmental accounting has the potential to assist managers in this task. In a basic way, it can be used to demonstrate the environmental responsibility of the organization, through accounting reports, where expenses with environmental controls should be clearly and reliably demonstrated, in addition, they can also be adapted as supporting instruments in the decision-making process using management accounting and cost accounting tools.

In this research, several factors were analyzed in relation to environmental accounting, such as environmental accounting concepts, environmental assets and liabilities, environmental revenues and expenses, among other issues and the uses of these tools in companies, so the real purpose of this work was to analyze the knowledge of accounting professionals who work in the market and power, thus helping those companies that do not have sufficient knowledge to know how to use accounting showing what is and how the available tools can be used.

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