GREEN ACCOUNTING – A NEW DIMENSION IN THE PERFORMANCE AND ACTIVITY REPORTING OF THE ENTERPRISE

Mariana MAN, Prof. PhD
University of Petroşani
Liana GĂDĂU, Lecturer PhD
Spiru Haret University, Bucharest

Abstract

As the title suggests, the article aims to go beyond traditional accounting that we are used to, towards a new dimensions of it, known as green accounting.

In this report we sought to emphasize the role, the importance of green accounting, which must be seen as a complement to traditional accounting.

In the context of green accounting, we expanded the concept of performance beyond the financial dimension, towards the following dimensions: economic, social and environmental, which we have explained and argued.

We presented various models of reporting, which can be used by companies to communicate information related to sustainability, which complement the information provided by traditional financial statements.

We also made a presentation of the most important international and European bodies recognized for promoting the publication of information on sustainable development, in their conceptual frame development finding references influences of the accounting international and American. We reviewed a series of indicators of sustainable development.

We have shown and argued that the same trend of promoting the publication of information on sustainable development can also be found at European level, and here we had in mind the Directive regarding the modernization of the European Accounting Directives, and also the current legislation no. 3055/2009 order OMFP part of the Romanian accounting reporting.

Key-words: *green accounting, sustainable development, economic performance, environmental performance, social performance, global performance, reporting models, Bodies-in promoting sustainable development of information published*

JEL Classification: M_{40}, M_{41}

Introduction

Starting from the reality that, in today's economy, the financial point of view is not the most important to assess performance, the entity management must take into account the social, economic and environmental impact exercised over any entity that is interested in company results.

What is the role of green accounting and how can it be defined?

Green accounting *has the role* of systematically considering the facts about protecting and restoring the natural environment by respecting the traditional role of accounting and of taking into account flows and risks of the natural environment, communicate a true picture of enterprise users. Therefore, in this report we sought to emphasize the role, the importance of green accounting, which must be seen as a complement to traditional accounting.

Also, green accounting has to be considered more than a passive recording instrument for immediate or future flows, certain or potential, but also a lever to encourage enterprises towards activities and strategies that are consistent with sustainable development.

Green accounting is dedicated to both external users and internal management of the enterprise.

Thus, *external green accounting* aims at presenting information about the natural environment:

– in the financial statements (by introducing the green fields in the balance sheet, profit and loss account or in the notes);

– in the intermediate management balances (the net present value calculation takes into account the consumption of natural resources);

– in the annual activity reports, or in a specific report on the natural environment.

National green accounting has as main objective the production of useful information for management decision-making enterprise.

What is the merit and importance of green accounting?

The merit and importance of green accounting is that business classical performance reporting goes beyond financial dimension, thus completing the concept of performance with two new dimensions, environmental and social.

1. **From financial performance to global performance**

In current times, the major objective of an economic entity is not anymore the simple procurance of profit.

More and more entities have begun to approach the concept of TBL (Triple Bottom Line), a concept that defines the performance at three levels: economic, environmental and social.

Now, if one ignores the social and environmental issues, especially large corporations, they risk losing market shares on the international market, paying the costs for having an ecological area of activity, and having to allocate large sums to control losses to regain consumer confidence.

1.1. *The economic dimension of performance*

This includes all aspects of the entity's economic interactions, including traditional indicators used in financial accounting, but also intangible items that do not normally occur in the financial statements.

Financial indicators mainly refer to the profitability of an entity and are intended to provide information both for entity management and its shareholders.

In the context of sustainability reporting, economic indicators focus more on how an entity affects the users it economically interacts with, directly or indirectly.

Therefore, the main purpose of measuring economic performance is highlighting the changes in the economic status of users, as a consequence of the activity of the entity, and not just recording the changes in the entity's financial condition.

1.2. *The environmental dimension of performance*

This concerns the impact of an entity on natural systems, including ecosystems, soil, air, water. Entities are encouraged to report this type of performance both in absolute and in relative values.

Absolute values give an idea about the size or impact of the usage, allowing the user to analyze performance in the context of larger systems.

Relative values illustrate the efficiency of the entity and allow the comparison between entities of different sizes.

Environmental performance includes information which characterizes: the amount of energy consumed and its origin, the treatments applied to resources, to emissions, waste, and residues management, the way in which the earth is exploited, the management of the environment in which the entity exists and operates.

Green accounting aims to identify and apply methods of accounting for specific elements of the natural environment, very close to reality results.

We can illustrate the accounting for greenhouse gas emissions shares based on French legislation in this field.

Thus, for each facility that has authorization to emit greenhouse gases, the company is awarded, for a certain period, with allowances which are granted every year over that period.

In the Notes of the financial situations, the company must provide the rates that are to be received until the end of the period. Allowances, being transferable, had led to the creation of a specific markets on which they can be traded (example: London Exchange).

At the end of each year, the company must repay to the state a number of allowances equal to the total emissions of greenhouse gas of its premises, allowances that can be received from the state or if they were insufficient, the shares purchased in the market.

For industrial enterprises, intangible assets correspond to emission allowances, and for commercial establishments these can also be purchased and granted financial instruments.

Good environmental practice results from a good economic practice which generates economic efficiency through friendly environmental technologies, products, services compatible with the environment, by conserving natural resources and energy.

The control and minimization of the environmental impact of the entity's activity by reducing, reusing and recycling become more and more important goals for the economic entities.

The activity of most entities that present environmental reports is certified by the management standards such as ISO 14001.

1.3. *The social dimension of performance*

This can be measured by analyzing the interactions between the entity, the committed human resource and any other parties engaged in the process.

Social performance indicators include: relations between employees, labor and human resources safety, the salary/cost of living report, the elimination of discrimination, respect for the local community, the impact on community's development, etc.

Many of the social issues covered by this type of performance are not easy to quantify, so that a number of social indicators are qualitative measures of the systems and activities of an entity such as policies, procedures and management practices.

As a result of studying many sets of companies from different industrial branches, the general trend discovered was *a positive relationship between environmental performance and economic performance.*

The relationship between eco-performance, financial performance and economic benefits for various environmental entities*, pointing out a positive relationship between these variables* was also researched*.*

The study also showed that positive relationship between eco-performance and financial performance is stronger when there are benefits induced by environmental requirements.

It was also found that improving environmental performance is associated with reduced economic performance. Moreover, the economic benefits, generated as a result of the initiatives to improve environmental performance, increase as the entity's environmental performance is improving.

We support a central feature that *the evolution of the activity of the entities organized on the environmental protection principles provides the economic sustainability, organization that has direct positive effects on economic performance growth.*

The environmental issues influence both costs and revenues of an entity. We need not abandoned the hypothesis that *economic performance ensures environmental performance.*

Here is the schematic relationship between environmental performance and economic performance:

$$\text{Economic Performance} \underset{\text{Causal effect B}}{\overset{\text{Causal effect A}}{\rightleftarrows}} \text{Environmental Performance}$$

Fig.1. *Environmental performance – economic performance relationship*

Source: Schaltegger, S, and Synnestvedt, T, *The link between green and economic success: Environmental management as the crucial trigger between environmental and economic performance* (Journal of Environment Management, Vol. 65, 2002), p. 340.

In the environmental performance – economic performance relationship, we find an A causal effect which may explain the effects of the performance measured by means of the financial indicators on the management based on the environmental requirements but also vice versa, a B causal effect which explains the economic performance improved through a coherent environmental performance improvement strategy.

2. **Social and environmental reporting information. Reporting models**

Corporate social and environmental reporting creates benefits for investors by reducing risks and by increasing profits. The research has shown that *Annual reports* are one of the most efficiently methods of presenting such information to investors.

Some leading companies have already begun to experience the merging of sustainability reports and financial reports in a single Annual report.

Even with separate reporting there is substantial value and opportunities through references or cross references.

Certain categories of entities required by financial reporting standards can and should incorporate qualitative and sustainable information. For example, reducing waste tendencies which can lead to cost reductions may be presented as an expense in financial statements, while the benefits of productive use of waste reductions can be recognized as revenue.

Debts arising from vulnerability to changes in environmental regulations, or international labor conventions can be recognized in the balance sheet.

At a more general level, economic, social and environment tendencies can be presented in the notes by detailing and analysing of future risks and uncertainties.

As *Reporting models* used for communicating information about sustainability, we can illustrate:

1. *The list of performance indicators* for a specific accountancy period (whose utility is enhanced by providing a standard value in order to achieve comparisons);

2. *The situation of natural capital* that can be broken down into these categories:

– Critical natural capital: the ozone layer, rain forests, biodiversity;

– Non-renewable natural capital and irreplaceable: oil, mineral resources etc.

– Non-renewable natural capital, but replaceable: waste recycling, energy consumption;

– Renewable natural capital: plantations, fisheries etc.

3. *Input-output analysis*: (keeps track of physical flows made of materials and energy inputs on the one hand, and products and wastes outputs, on the other hand, measured in physical units).

4. *Life cycle analysis*.

5. *List of violations by non-compliance to legislative requirements*.

6. *Descriptions of social and environmental impact*.

It should be noted that the monetary standard assessment may cover only the economic dimension of reporting.

In order to assess social and environmental elements the usage of different units of measure will be necessary, because imposing the monetary unit can lead to a false representation and the underestimation of the impact compared to economical aspects. A better maintenance has a qualitative or descriptive reference.

3. **European and international bodies in promoting the publishing of information regarding the sustainable development**

Currently, there are several reporting bodies, the most important being: Global Reporting Initiative (GRI), United Nations Environmental Programme (UNEP), Public Environmental Reporting Initiative (PERI), Fédération des Experts-Comptables Européenne (FECE).

GRI is an international organization whose purpose is to promote the publication of information on sustainable development.

The adoption of the texts emitted by GRI results from voluntary intercessions so far existing no disposition requiring the application of it.

The Guideline developed by GRI does not aim to replace the current applicable accounting standards, *but to provide a basis to meet the credibility and relevance requirements in non-financial reporting, that supplement the financial statements*.

It also aims to advance the quality of a social and environmental reporting at the level of comparability, rigor and verifiability specific to the financial reporting.

In developing its conceptual framework, GRI has inspired from the international accounting (IASB) and U.S. (FASB) reference.

The basic principles of this conceptual framework can be summarized as follows:

Transparency

Inclusion

Content of the report:	Reliability:	Availability:
– completeness	– accuracy	– clarity
– relevance	– neutrality	– periodicity
	– comparability	

Auditing

Fig. 2. *The basic principles of this conceptual framework*

As the objective of financial statements is to provide a true financial position, the performance and financial position of the company, the objective of social and conceptual environment is to provide a balanced and reasonable picture of the pointed areas: economic, social and ecological.

The Guideline developed by GRI provides 97 indicators relating to: financial performance (13), social performance (49), performance on the natural environment (35).

Natural environmental indicators recommended by GRI, to 35 in number, are grouped under the three main themes as shown below:

Table 1

Natural environmental indicators recommended by the GRI

Categories of indicators	**Detailing directions of categories of indicators**
Resource consumption	– Materials consumption; – Water consumption; – Energy consumption.
Impact of the entity activity on the natural environment	– Exploitation conditions; – Discharges in the air, water, soil, seriously affecting the natural environment; – Waste; – The amount of benefits paid by court order regarding the natural environment.
Measures taken by the entity to minimize these impacts	– Initiatives to exploit renewable energy sources and improve energy efficiency; – Objectives, programs, forecasts of protection and restoration of ecosystems and indigenous areas part of the degraded areas.

Source: www.globalreporting.org

Another very important international body that takes the trouble in promoting the publication of information on sustainable development is the United Nations.

It has developed a conceptual framework and methods of assessment and accounting for the consequences of the business activities on the natural environment.

As with the IFRS, conceptual framework of the UN comprises qualitative characteristics (these are the same as those of the general IASB Framework: understandability, relevance, reliability, comparability) and *basic concepts* which are the following:

– accrual accounting;

– independence of the financial exercises;

– congruence: consistency between financial information and disseminated environmental information;

– unambiguous precision regarding the indicators retained by the company in communicating information about the natural environment.

Indicators recommended by the UN regarding the natural environment are grouped into the following categories as shown below:

Table 2

Indicators recommended by the UN regarding the natural environment

Categories of indicators	Detailing directions of categories of indicators
Water	– The amount of consumed water; – The nature of consumed water; – Water use
Energy	– The amount and nature of energy consumption, etc.
Greenhouse effect	– Greenhouse gas emissions from the use of petroleum, mineral consumption, etc
Ozone layer	– The consumption of goods with effect on the ozone blanket compared to net value added of the enterprise; – Information on the production, purchase, sale, storage, recycling goods that influence the ozone layer, etc.
Waste	– The nature and amount of waste produced; – Nature of the treatments used to reduce or suppress them, etc.

Source: www.globalreporting.org

The same trend of promoting the publication of information on sustainable development we also find on the agenda of the European Parliament, which ever since 2002 has come with the following proposals regarding the natural environment, namely:

– the existence within the IV Directive/EEC of a provision requiring companies to disclose social and environmental reports;

– the obligation of publishing reports on ecological and social environment for any company who wishing to be listed on the Stock Exchange;

– subjecting social and environmental reports to the audit process;

– the obligation of publishing these types of reports by all companies regardless of their size.

Thus, at European level, the Modernization Directive, designed to update the accounting requirements of modern accounting practices, also includes the requirements of reporting the non-financial performances. We take into consideration the introduction of the company's results and non-financial indicators, especially the information related to environmental and personnel problems, in the Annual rapport, for the analysis of the company's evolution.

In the recent years, the Romanian reporting accounting law (OMFP no.3055/2009) follows the trend of European and international tendencies, we find the requirements for the natural environment.

Thus, the OMPF no.3055/2009 requires that in the balance sheet, in the item "Other provisions" should also be included provisions made for expenditure for environmental protection, namely: air protection, used gas management, waste management, soil protection, biosphere and landscape protection, which shall be described in detail in the note, if they are significant.

Previous OMFP no.1752/2005, having the same name, did not contain such specification, making no reference regarding the publication of information on the natural environment.

Conclusions

The impact of economic entities on the environment and society is becoming increasingly important for managers, at any given time in the future, generating a number of present and future risks and uncertainties, which an economic entity must meet and therefore should include in public reports.

Given the more and more selective current conditions, in which the consumers show an increasing demand for products and services that do not harm the environment, economic entities find themselves in the situation in which they must report information about such features of their products and services.

Therefore, more and more entities have been repositioned regarding the economic, social and environmental reporting, becoming from spectators decision-makers. More and more entities have begun to approach, for a sustainable development of business, the TBL concept, a concept that complements the performance by its three levels: economic, environmental and social.

Also, organizations adopt business strategies to maintain environmental quality and to ensure a competitive advantage by increasing profitability. Thus, environmental and social reports published by large corporations, which indicates a sustainable development, became part of the information they publish.

REFERENCES

Caraiani C. et al. *Contabilitatea verde. Strategii transdisciplinare către contabilitatea socială şi de mediu.* Bucureşti: ASE, 2010.

Dascălu C. et al. *Eco-cost Challenges for Environmental Protection,* "Journal of Environmental Protection and Ecology" 4 (2008): 925-938.

Dascălu C. et al. *The Externalities in Social Environmental Accounting,* "International Journal of Accounting and Information Management" 1 (2010): 20-32.

Gary S. *Meeting the Challenge of Performance Reporting under the EU Account Modernisation Directive.* London: FSE Publishing Limited, 2005.

Gray R. H., *Social, Environmental and Sustainability Reporting and Organizational Value Creation? Whose value? Whose creation?,* "Journal of Accounting and Auditing" 6 (2006): 41-61.

Lungu C. et al. *Performanţa globală verde – model al raportării sustenabile,* "Contabilitatea, expertiza şi auditul afecerilor" 9 (2009): 29-33.

Schaltegger, S, and Synnestvedt, T., *The Link between Green and Economic Success: Environmental Management as the Crucial Trigger between Environmental and Economic Performance,* "Journal of Environment Management" 5 (2002): 339-346.