GREEN ACCOUNTING –A STEP TOWARDS IMPROVING THE ENVIORNMENT

CONTABILITATEA VERDE –UN PAS SPRE ÎMBUNĂTĂȚIREA MEDIULUI ÎNCONJURĂTOR

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Abstract: *A raise in temperature with only 1 degree Celsius could lead to disasters all over the world. Unless everyone takes measure, our planet, as we know it, might soon change irreversibly. Green accounting can help improve the environment by pointing out how to use the natural resources in a sustainable way.*

Rezumat: *Creşterea temperaturii cu doar 1 grad Celsius poate duce la dezastre peste tot în lume. Dacă nu se iau măsuri, planeta aşa cum o ştim noi se poate schimba ireversibil. Contabilitatea verde poate ajuta la îmbunătățirea mediului prin explicarea modului în care resursele naturale pot fi folosite într-un mod sustenabil.*

Key words**:** *green accounting, environment, resources*
Cuvinte cheie: *contabilitatea verde, mediu, resurse.*

INTRODUCTION

A raise in temperature with only 1 degree Celsius could lead to disasters all over the world. It's a fact that has already been proven. Unless everyone takes measure, our planet, as we know it, might soon change irreversibly. Green accounting can help improve the environment by pointing out how to use the natural resources in a sustainable way. Green accounting, from the moment of its "creation", attempted to coordinate, consider and evaluate the markets and plan in such a way to obtain a system of integrated environmental accounts with national accounting.

The authors explain what green accounting is and what it can do to improve the environment and how we look at businesses. Also, an example of company which has been using green accounting for decades will be given, with emphasis on why that approach is important and what it has done for the environment.

GREEN ACCOUNTING IS ENVIORNMENTAL ACCOUNTING

Methods for environmental accounting have been subject of debate for the past 20 years. Although the methods developed and implemented through the European Union and the United Nations have been accepted to some degree, the organizations have not reached consensus on many of the details. Because EU and UN methods are used by many national governments, they are likely to have more impact than other approaches to environmental accounting.

The conventional accounts follow business accounting policies, subtracting the depreciation of manufactured assets to calculate net income. Natural resources, such as forests, should be treated in the same way. If trees are harvested at the rate they grow back the forest could produce income every year (HECHT, 2005). If, on the other hand, the forest is cut down within two years, it will not longer keep producing. Therefore it should be treated into accounts as depreciation of natural assets.

Green Accounting requires for the nature's environmental and economic assets and the "environmental cost" of their degradation and depletion to be incorporated in the System of National Accounts. The asset accounts measure the value of opening and closing stocks of

economic and environmental assets, and their changes during an accounting period. Changes in assets are brought about by the formation and consumption of produced and natural capital (assets) and other non-economic influences such as discoveries, natural disasters or natural regeneration. National accounting requires adding up inputs, outputs and environmental impacts, and combining them into environmentally adjusted ("greened") indicators.

AT&T AND THEIR GREEN ACCOUNTING APPROACH

AT&T is a major multinational high-technology company. The company was created in 1984 as a division of the Bell System's telecommunication business. AT&T is the world's largest telecommunication company and employs over 300,000 people around the world. AT&T's revenues are derived from telecommunications services, products, and systems; rentals and other services.

The company defines green accounting as "*identifying and measuring AT&T's costs of environmental materials and activities, and using this information for environmental management decisions*" [AT&T Environmental Accounting Glossary].

AT&T issued a corporate environmental policy in 1973, which was renewed in 1984 when the company has been reorganized. AT&T's policy goes beyond regulatory compliance by committing the company to develop and use nonpolluting technologies, minimize wastes, increase recycling, design products and processes with environmental impacts as a critical factor, and raise all employees' awareness of environmental responsibilities. Later the company updated the policy by embracing a life cycle approach[i] and the use of Design for Environmental practices in the company.

Adopting green accounting was enhanced by the relationship to several important programs at AT&T: Total Quality Management, Design for Environment and Activity-Based Costing and Management.

AT&T believes that investing in the environment has helped it decrease operational costs and avoid future liabilities. As a result, AT&T has set aggressive environmental goals.
In 1993 AT&T reached its goal of eliminating emissions of chlorofluorocarbons (CFCs) and other ozone-depleting substances from its manufacturing operations. The company achieved this goal two and a half years ahead of a worldwide ban by creating new manufacturing techniques that eliminated the use of the materials responsible for the emissions. AT&T also achieved significant results by reducing waste, increasing recycling, and using recycled paper.

Knowing that Green Accounting must involve several traditionally separate perspectives and functions, AT&T management saw a multi-functional team approach as the only viable option.

The Team, after its first meeting in 1994, concluded that it makes sense for AT&T to use Green Accounting for the following reasons:

- to control/improve process costs
- to trace costs to green activities
- for investment decisions/trade-offs
- to assess design impacts, now and in the future
- to prove compliance with environmental standards
- to respond to customers and other stakeholders
- to support sustained growth of profitability
- to make it easier to understand AT&T's impacts on the future.

At the kick-off meeting, members related Green Accounting to two basic accounting activities:

1) planning, such as predictive analysis weighing environmental impacts on the future (i.e., life cycle analysis, target costing), and

2) collecting and reporting data.

The Environmental Accounting Glossary was an early project of the Team, designed to identify and clarify the definition of key terms. It was based on the "*Glossary of Activity-Based Management*", which was published by Computer Aided Manufacturing-International (CAM-I) in 1991 and edited by Norm Raffish and Peter B.B. Turney.

The Team agreed that good cost management is necessary for Green Accounting. Therefore the team's orientation was on how ABC/ABM practices and principles could help AT&T achieve better environmental habits. The Team decided to recommend use of ABC/ABM principles to stimulate improvement of environmental results. AT&T can account for the environment effectively by incorporating environmental elements into ABC/ABM cost tracking and planning models as follows:

- where Activity Based Costing (ABC) captures cost elements in processes – we need to add the environmental elements.
- where Activity Based Management (ABM) uses data to make decisions – we need to add environmental criteria to the decision models.

The Team found that even though attention was being paid to some environmental costs at AT&T, good data was not readily available to assess the degree to which environmental costs were being identified and allocated to specific products. They also found that environmental activities' costs might be allocated to products generically or might be charged to research and development (R&D) or general and administrative (G&A). The Team hence decided to develop a self-assessment tool that AT&T plants could use as an aid in establishing baselines and goals for improvement.

For the future, the Team has determined the following issues to be addressed:

- Determining whether future liabilities should be spread over product life in order to build reserves for environmental costs that are predictable;
- Developing a process for focusing on what is important in order to avoid being inundated with irrelevant data;
- Defining inputs, outputs, and drivers for environmental activities; and
- Relating environmental activities to Cost of Quality categories.

CONCLUSIONS

Based on the AT&T study, we can write a set of objectives which any eco-friendly company should try to attain in the future:

- Bring environmental cost considerations into the business case for any future plant start-ups and divestitures;
- Inject environmental considerations into standard business case process models used by organizations for business planning and management;
- Move environmental information and cost impacts into the hands of designers and tie in with a software tool being developed to assist designers in scoring the environmental attributes of a product and identifying areas for improvement;
- Introduce life cycle cost models that incorporate environmental considerations, eventually including "societal costs" or "externalities" and customer costs.; and
- Use Green Accounting to develop lists of corporate environmental metrics that can be used to measure and reward performance.

The recipe for green accounting and environmental planning does not come from old-fashioned socialist writers but from the very heart of mainstream neoclassical economics. Suffice it to say that after the disastrous results of economic planning in the former socialist countries and the existing developing ones, the burden of proof should lie on the planners to

show they can outperform property rights, markets and the rule of law in the protection of the environment.

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[i] AT&T defines life cycle analysis/assessment as "*the review of the environmental impact of a product or process over its entire life cycle, including resource extraction, manufacture, packaging and transportation, use and recycling/disposal.*" [AT&T Environmental Accounting Glossary]