Editorial

Caroline Gauthier

Grenoble Ecole de Management,
38003 Grenoble,
France
E-mail: caroline.gauthier@grenoble-em.com

Sustainable development has been defined in many ways. A synthesis by Bansal (2002) situates it at the crossroads between three fundamental principles:

1 an economic principle that demands a reasoned use of resources, without jeopardising future generations

2 an environmental principle that dictates that the civil society should protect its resources

3 a social principle according to which every individual should be equally treated.

Implementing sustainable development therefore consists of striving toward the threefold economic, environmental and social performances of the organisation.

Most authors agree that this corresponds to a search for a new development model that would contrasts with the traditional model, in so far as it essentially targets financial performance. Indeed, it is being increasingly welcomed by all types of corporate stakeholders, including managers. It was in this respect that Lauriol (2004) proposed the term new managerial paradigm.

However implementing sustainability is not self-evident (Epstein and Roy, 2001), and managers do need tools for such an objective. This special issue welcomes research articles on any tool or concept developed or adapted by management sciences that favour the implementation of sustainability.

Anthony Halog and Albert Chan propose a decision tool for technology. Their dynamic systems modelling approach to assess the sustainability of novel technologies and analyse the way these technologies can be used to meet the triple bottom line objectives. A prototype model of the oil sands industry is developed. It shows that there are two identified emerging technologies with a high potential for lowering GHG emissions in the Canadian oil sands industry.

Two articles propose a tool for durable product design. Rachid Chalal and Abdessamed Reda Ghomari propose a definition tool that satisfies the implicit and explicit customer requirements. Software architecture is proposed to focus on assessment (engineering, ecology, logistics and risk management) and facilitate the cooperation between intervening parts within the framework of the simultaneous conception.

The model by Jose Götzsch facilitates the identification of a product's key attraction points, including environmental-friendly characteristics. Its application to the eco-designed letter scale project shows that a creative approach and a focus on environmental issues can lead to a radically different product concept. The project, presented in this case

study, was created by Damien Pesenti and received the award for the best eco-design project in the "Prix Bruneau des Jeunes Talents Eco-design" design contest in Lyon, France.

Doris Schnepf and Sophie Strasser propose an internet-based management tool for sustainable urban planning. An application to the City of Narva, Estonia, and recommendations for municipalities adopting e-solutions are given.

Rajesh Kumar Singh, Ramalinga Murty, Sudheer Kumar Gupta and Anil Kumar apply the Importance-Performance Analysis to the Steel Industry. The method simultaneously considers both the importance and the performance dimensions when evaluating or defining environmental strategy. The major finding of the study indicates that industry needs to develop robust methodology for the monitoring of EPIs and perform benchmarking with competitors, conduct environmental risk assessment, improve their hazardous waste management practices and make environmental investments on regular intervals.

Hosein Piranfar and Robin Matthews propose a reflexion on the concept of reputation in this implementation context. They look at the concept of reputation from four angles: cost-benefit, semiotics, quality and complexity.

Caroline Gauthier concludes this special issue by showing that the sustainable development model also proposes a new way of thinking, which disengages the manager from the previous model and is more adapted to the context of 21st century organisations. The paper proves that the sustainable development model highlights the limitations of Cartesian thinking and the advantages of systemic analysis.

References

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