# CHAPTER 11 - Sustainability and performance management

## Contents

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## 11.3 What is sustainable development?

**Active reading.** Note that sustainable development is not a new concept. It has been a concern for several years. Also, note that the definition of sustainability is much broader than just being environmentally friendly.

Two definitions help us understand what is meant by sustainable development and sustainability.

- Sustainable development is defined by the United Nations World Commission on Environment and Development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987).
- Sustainability refers to the long-term maintenance of systems according to environmental, economic, and social considerations (Elkington, 1994; Crane and Matten, 2004).

## 11.4 Why be sustainable?

**Active reading.** Note the key motivators for organizations adopting sustainable practices. Think about why the external motivators are still important?

Ideally, the motivation for being sustainable would come from inside the organization and be a part of its normal strategic planning. There are considerable pressures from a wide range of stakeholders that make sustainability an essential element of consideration in the products and services offered and the method of operations that make it difficult to ignore. More and more organizations realize the benefits of adopting sustainable practices, not just for the cost savings, such as reduced energy usage and wastage, but in satisfying a growing demand for a more sustainable lifestyle by the consumers.

There are, however, accusations of organizations adopting the practice of "greenwashing" where information is provided about products, services, and operations that make the organization appear to be more concerned and proactive about sustainability issues than it really is. This practice has prompted the emergence of organizations such as The Greenwashing Index, which was created by the University of Oregon in partnership with EnviroMedia Social Marketing and allows examples of greenwashing to be uploaded and rated by the public.

There is a considerable way to go before all organizations embrace sustainable development as a norm, and some would argue that many consumers, and society in general,

still need to be convinced and encouraged to adopt a more sustainable lifestyle. Brand managers are, however, now finding that where they used to argue that although consumers say they want sustainable products, they don't actually buy them at the checkout, there has been a steady increase in the purchasing of sustainable products (Kronthal-Sacco et al., 2019). Also, over the past few years, there has been a growing amount of evidence that suggests that adopting sustainability as a vital part of the strategy can improve financial performance rather than just adding to cost (Whelan and Fink, 2016). Although this is helping to convince organizations of the benefits of sustainability, external motivations are still acting as the key driver for the adoption of sustainability practices.

External motivations for being sustainable come from organizations, such as regulatory bodies, governments, and public pressure groups (Rodrigue et al., 2013). Professional accounting bodies are included among those promoting the reporting of sustainable practices, and corporate governance codes are requiring an increasing amount of information to be published concerning sustainability issues. Consumer groups are actively promoting topics such as the use of sustainable materials, recycling, and products made from recycled materials. Governments in developed countries are prepared to legislate and levy taxes to discourage the use of materials and sale of products that are harmful to the environment. The need to be seen to be sustainable can be a significant influence on strategy development and strategic choices. Many organizations now produce an annual corporate social responsibility report demonstrating their commitment to sustainability and include sustainability objectives within the strategic plan. Indeed, in some instances, it is the source of competitive advantage or differentiating factors.

**Learning activity.** What significance do you personally give to the sustainability of the products you buy and the organizations from which you buy? Do you think that being sustainable will still be the basis of a differentiating factor in five years?

## 11.5 Environmental accounting

**Active reading.** Note the suggestion for an environmental management system and a databank of environmental performance data. Think about how this could be incorporated into a strategic accounting system descried by Brouthers and Roozen (1999) in Chapter 2 of this learning resource to support sustainability objectives. Also, note the range of accounting techniques covered in this learning resource that can be used to support sustainability.

Rather like strategic management accounting the term environmental accounting in not widely used in practice but has been described by Bartolomeo et al. (2000) as being concerned with providing reports for both internal use by generating information to aid management decision-making relating to pricing, controlling costs and capital budgeting, and external use, by disclosing environmental information of interest to the public and the financial community. It has been suggested by Lally (1997) that to support the monitoring and reporting of cost accounting relating to all environmental costs; it is useful to develop an environmental

management system that provides a databank of environmental performance data. It is likely that most of the functions within the organization in which environmental costs occur will contribute to the database.

The monitoring, reporting, and control of environmental costs require collaboration between all functions. Ideally, the concept of corporate social responsibility and sustainable development would be part of the organization's culture. It is endemic throughout the value creation system, and all departments from the design of products for the environment, reduction in emissions, waste, and energy usage throughout production and delivery operations would be involved and all continually looking for opportunities to enhance the positive environmental impacts.

Environmental accounting focuses on areas where accounting techniques can be applied, and the planning, monitoring, and reporting of costs for control purposes occur and include capital budgeting, expense budgeting, financial (and nonfinancial) performance indicators, budgetary control, and product costing (Yakhou and Dorweiler, 2004). These are all traditional techniques, and in theory, some of the data for highlighting the environmental impact of operations should be readily available. Rondinelli and Vastag (2000) suggest that environmental accounting can support life cycle analysis; development of environmental policy for the supply chain, for example, vendor selection and evaluation; the recycle, redesign and manufacture of products; monitoring and auditing environmental performance; and accounting for environmental costs and savings.

Other techniques where sustainable elements could be highlighted include target costing, activity-based costing, customer profitability analysis, real options in investment appraisal, and the development of key performance indicators. The cost of quality framework can also be applied successfully to environmental costs. The framework of *prevention*, such as the cost of environmental pollution prevention rather than clean-up after the event, *appraisal* to ensure wastage is reduced, and highlighting the *cost of failures*, both internal and external, can be used. By using appropriate techniques and drawing attention to the environmental and social aspects of the decisions being supported, accountants are also able to assist in enhancing regulatory compliance, driving cost savings, investing in innovation, and engaging with customers, staff and the wider community. It is, however, essential to remember that the accountant is only a member of the team, but being a proactive member can raise the significance of the financial impact of being environmentally and socially responsible.

Yakhou and Dorweiler (2004) suggest that possible motives for emphasizing environmental accounting include assuring compliance with regulations and increased efficiency, such as energy conservation. Also, reducing the impact of operations on the environment, for example, considering the costs of recycling via the use of life cycle costing, making continual improvements aided by total quality management, and encouraging innovation.

There is an argument that suggests that being, or being seen to be, environmentally friendly enhances the reputation of the organization. Being environmentally friendly was often seen as being costly due to changes in operations. It is only more recently that the real benefits have been seen in terms of improving financial performance. Sen et al. (2015) identified that there was a positive correlation between being environmentally proactive and financial performance. The link was much stronger in manufacturing-based than non-manufacturing based operational

performance, which is possibly due to the opportunities for reduced wastage, energy conservation, and changes in working practices in a manufacturing environment.

Horváthová (2012), however, noted that there could be a lag between the implementation of environmental policies and practices and any improvement in financial performance. This agrees with the hypothesis of Porter (1991) in that any benefit from the implementation of improved environmental practices is seen in the long run. This is due in part to the initial investment required to implement environmentally friendly and socially responsible practices. The implementation of such practices can also provide the organization with the opportunity to gain a competitive advantage in the market (Porter and Van Der Linde, 1995).

The management accounting department can assist in the scanning and monitoring of the changing environment in the context of the business (Wycherley, 1997). They can highlight the financial impact of any changes in the environment, where a change in operational practice is necessary and practical. The accountants are becoming more involved in validating and channeling the information to ensure compliance with regulatory mandates. For example, accountants are frequently involved in providing information for, and the audit of, CSR reports.

So far, we have focused on the environmental aspects and, via discussion of the financial performance, the economic element. The social element is equally important. Porter and Kramer (2011) talked of a 'shared value', of creating economic value in a way that also creates value for the society by addressing its needs and challenges. Indeed, they suggest that good business contributes to sustainability. Moon (2007) indicates that the CSR strategy is fundamentally concerned with embedding socially and environmentally responsible actions throughout the organization [and the more extensive value creation system] to enhance long term value. There is increasing legislation relating to CSR, and shareholders are demanding more information and holding senior management to account concerning the CSR policies and practices adopted by organizations in which they invest. Arjaliès and Mundy (2013) strongly advise that the CSR strategy be integrated into the overall strategy; that is, it is not something to be added on later or treated separately.

**Learning activity.** It is not just the product development and operations functions that can contribute to the sustainability objectives of an organization. Think about the numerous opportunities for accountants to become proactive in developing and maintaining sustainable practices (in the broadest sense of the term) within an organization.

## 11.6 Integrated management control systems

**Active reading.** Note how the qualities of an accounting system can be beneficial in the collection and reporting of environmental performance indicators and how the ISO standard includes the extent to which a management system exists and the measurement of the quality of the environment.

Whereas Lally (1997) suggested that environmental cost accounting draws on information from and is part of an environmental management system (EMS), the EMS could be viewed as being

a subset of the more general management control system (MCS). Malmi and Brown (2008) define the MCS as including the systems, rules and practices, values, and other activities management put in place to direct employee behavior. Now that the requirements for CSR and sustainable development are also becoming more enshrined in legislation and the U.S. GAAP (generally accepted accounting principles), and the U.K. GAAP, there is a requirement for the management control system to encompass sustainable development controls as well. It requires cooperation across disciplines and functions within the organization as some of the information is not obtained easily from the accounting systems, for example, carbon emissions. The regular collection of certain data, such as the carbon emissions mentioned, may require additional investment in monitoring equipment or the estimation of emissions by operating departments.

Bartolomeo et al. (2000), however, noted that the accounting systems do provide a degree of integrity via the checks and controls applied to data collection and information reporting. Due to these qualities, the information contained in CSR reports, and reported internally and externally, is often collated and coordinated by the accountants. Still, cost savings are often driven by operational management. This emphasizes the cooperation and collaboration required between functions.

**Performance indicators**

Chapter 10 (section 10.5) of this learning resource included Simons' levers of control: diagnostic, interactive, belief, and boundary systems, all of which are appropriate to sustainable development objectives. The balanced scorecard was also discussed (section 10.3), which aids the development of a multidimensional approach to performance management, which could include measures relevant to sustainability. The International Standards Organization environmental standard ISO 14031 contains three types of performance indicators that provide a multidimensional platform for monitoring sustainability. The operational performance indicators include the elements that are probably most often thought of as part of monitoring sustainability and relate to the inputs and outputs of an organization.

- Operational performance indicators (OPIs):—inputs, the supply of inputs, the design, installation, operation and maintenance of the physical facilities and equipment, outputs, and their delivery
- Management performance indicators (MPIs):—policy, people, planning activities, practice, procedures, decisions, and actions in the organization
- Environmental condition indicators (ECIs):—information about the local, regional, national, or global condition of the environment

The standard includes a review of the extent to which the organization has an environmental management system in place to protect the environment. Activities such as the number of environmental audits undertaken, staff training, supplier evaluations, reported cases of non-compliance, corrective action reports issued, and actions taken would be typical of this type of control. They do not, however, in themselves measure the impact of the controls on the environment but provide some assurance of the policies and procedures in place.

The environmental condition indicators provide an assessment of the impact of the organization on the quality of the environment. Regional may refer to a state, a province, a group of states within a country, or even a group of countries such as the European Union depending on the scale of operations that the organization chooses to consider.

The environmental condition indicators are often measured by the regulatory authorities in the area and encompass factors such as air quality, water quality, soil quality, and noise levels. In cases where a single organization is the main contributor to the environmental impact in a region, the regulatory authorities may require the organization to monitor the quality of certain aspects of the environment. For example, an organization that uses high levels of water that is recycled to the natural sources monitors the water quality, or a local airport monitors noise levels, or a local factory monitors air quality. Organizations with high sustainability aspirations may undertake these activities voluntarily.

A key function of the ISO indicators and any environmental management system is to provide an early warning system of environmental changes that prompt correction action. The comparison with other external benchmarks, such as industry or competitor benchmarks, offers opportunities for making improvements to performance that benefit the organization, the environment, the economy, and society.

## 11.7 Sustainable balanced scorecard

**Active reading.** Note the different approaches to incorporating sustainability into the balanced scorecard.

The balanced scorecard was discussed in Chapter 10, section 10.3 of this learning resource as a mechanism for considering performance from a range of perspectives. One aspect to consider is whether organizations should adopt a separate scorecard for sustainability or incorporate suitable measures within the overall organization's scorecard (Figge et al., 2002). The overall scorecard could include an extra perspective of sustainability, or appropriate measures could be included within existing suggested perspectives of financial, customer, business processes, and learning and growth. A danger of keeping a separate scorecard is that sustainability becomes marginalized. Therefore, a high degree of integration into an overriding scorecard is said, by some authors, to be a preferable approach (see, for example, Figge et al., 2002; Moon et al., 2011; Gond et al., 2012).

Ideally, the objective is to enable the organization to address within its strategy and performance monitoring the economic, environmental, and social elements simultaneously (Schaltegger and Burritt, 2000). Moon et al. (2011) and Gond et al. (2012) looked more specifically at the types of control used by organizations. Both sets of authors used Simons' (1994) levers of control as the benchmark, and although the organizations used all four levers under investigation, the focus was on the use of diagnostic and integrative controls.

Diagnostic controls are used more to monitor and control the achievement of the objective, such as the reporting between actual and planned performance. Many of the standard accounting reports fall into this category. Integrative controls involve frequent communication between supervisors and subordinates, for example, via meetings and constant feedback and

dialogue, and enable senior managers to gain a richer understanding of potential opportunities and challenges while simultaneously signaling to junior managers the organization's strategic position (Simons, 1995). The interactive controls also provide input to strategy development, guide emergent strategies, encourage novel strategic responses, and trigger organizational learning (Gond et al., 2012).

Moon et al. (2011) highlighted the difference between the MCS (management control system) and SCS (sustainability control system). They suggest that the SCS captures environmental and social issues more systematically and broadly than a conventional MCS. They also indicate that the SCS is usually operated by groups other than the finance/accounting team within the organization. This refers to the fact that much of the data concerned with environmental and social aspects are contained within nonfinancial data collection systems and, in many cases, such as social impacts, are difficult to value in financial terms. They do, however, argue strongly that the MCS and SCS, should one exist, be integrated.

Technological systems such as the increasing adoption of ERP (Enterprise Resource Planning) systems and integrated software is making this more possible but relies on organizations to invest in such systems in the first place. Lueg and Radlach (2016) noted, based on a literature review, that organizations may prefer to manage specific aspects of sustainable development rather than develop an all-encompassing SCS covering environmental, social, and economic factors. This takes account of the practicalities facing many organizations in collecting the necessary data and is an area where accountants can assist in evaluating the potential costs and benefits of implementing the elements that have high relevance to the operation and success of the organization.

There can be barriers to the implementation of an SCS. These include the degree of uncertainty about the accuracy of the data collection or even that the data is available to be collected. It is connected to the senior management often not being convinced of supporting the benefit of investing in the development of such a system. And, as already noted, the difficulties of establishing appropriate metrics and collecting the data on a regular and cost-efficient basis (see Moon et al., 2011). Of course, all of these can be overcome, but it may take time. Meanwhile, the pressure from end consumers, customers, suppliers, and commercial partners, and the need for compliance, external evaluation, and the potentially enhanced reputation, all add to the need to adopt a sustainability agenda within its overall strategy.

**Learning activity.** Think of an organization with which you are familiar and discuss which approach to incorporating sustainability measures within the performance management system you think would be the most effective?

Under the ISO, the environmental condition indicators require external data to be collected. Should the whole of the SCS (sustainability control system) be incorporated into the overall MCS, or is the impact on the external environment better dealt with as a separate reporting element? In other words, is it better for an organization to concentrate on internal control measures to reduce emissions so that the impact on the local environment will automatically be reduced?