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Sustainability as a Driver for Corporate Economic Success

Consequences for the
Development of Sustainability
Management Control



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Abstract

Sustainability issues create opportunities and threats to business success. This paper discusses drivers to create a business case for sustainability and argues for a more systematic approach to management than current approaches that in practice involve working with checklists. Based on the core logic of the Sustainability Balanced Scorecard (SBSC) perspectives, a structure for sustainability management control is discussed.

Keywords

(Sustainability) balanced scorecard, sustainability management control, sustainability management, factors of success

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Sustainability as a Driver for Corporate Economic Success

- Consequences for the Development of Sustainability Management Control

Sustainability topics are influencing the economic success of companies more than ever. Sustainability has become a driver for both risks and opportunities in business. Strategic management and information management are thus challenged to take into account sustainability information.

Independent of the strength of their influence, elements of sustainability can work through market or non-market processes to have an effect on business success. This paper argues for a structuring concept for sustainability management control that is based on the sustainability balanced scorecard approach and accounts for both market and non-market factors that can influence business success.

1 Market and non-market character of strategically relevant social and environmental topics

Environmental and social topic offer both, corporate risks as well as business opportunities. Independent of the strength of influences on companies, these topics can exert a visible, economic relevance or they can have a non-market character (Figure 1).

In order to be able to systematically take into account the relevance of elements of sustainability to business success, a variety of characteristics and mechanisms of market and non-market factors must be considered. Costs for CO₂ emission certificates, declines in sales of products thought to be socially questionable or savings in energy costs through more efficient production processes are obvious examples of market processes. There are many environmental and social issues, however, that operate indirectly. Laws and regulations, social trends and political processes may change suddenly or they may change over a period of years leading, for example, to increases in costs or to an increased willingness on the part of consumers to pay higher prices.

Consumer attitudes and behaviour, as for example, the fact that genetically modified food is not purchased in most Western European countries, can be identified with market research and is mostly dealt with by conventional marketing approaches. Also saved costs due to the reduction of materials and energy in the production are expressed in the accounting systems and can obviously influence the economic performance of the company.

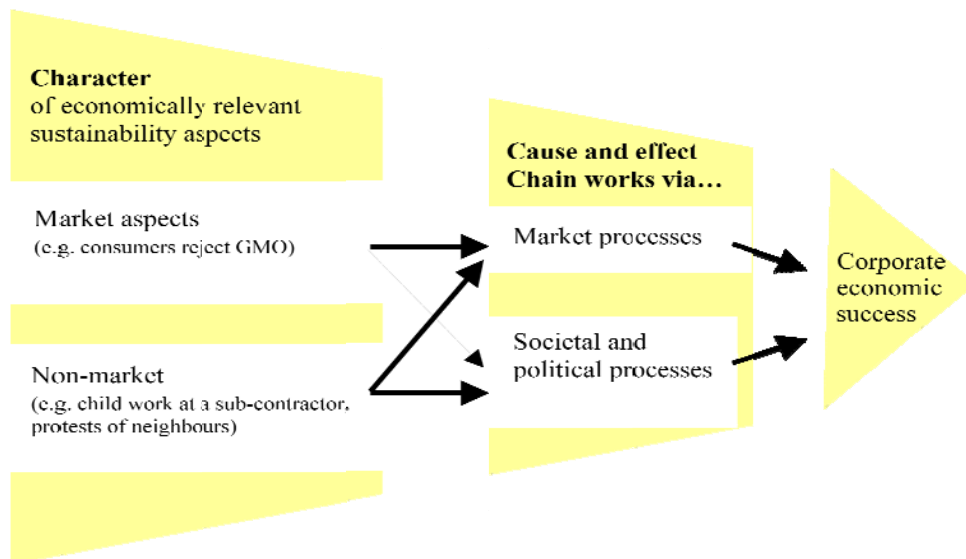


Figure 1: Market and non-market character of economically relevant sustainability topics

As a contrast to these market driven sustainability issues, *many environmental and social topics develop outside of markets* in the regulatory and societal business environment (e.g. Freeman 1984; Schaltegger et al. 2003, 36ff.). For instance child work at a sub-contractor does not have a direct link to costs or revenues. Nevertheless, neither a direct contact with the children nor the subcontractor is necessary to give the sustainability issue “child work” economic relevance for the brand leading company in the supply chain. As for instance Nike, the world’s largest sports article manufacturer has experienced, non-market topics can suddenly become economically relevant through dropping sales and reputation when NGOs address the topic and media attention is given. In some cases these non-market issues can have a stronger economic effect than many topics with a clear market link.

In addition to the differentiation between market and non-market issues, a *distinction between market and non-market processes* is helpful. Non-market processes can be societal processes driven by media or in social communities in the internet which ever more influence values and social attitudes towards companies and products. They also include actions of regulators (e.g. Hemphill 1997) and the public administration (like restricting the daily flight time) reacting to protests of neighbours of an airport against noise in early and late hours of the day. Mostly less business relevant, however, still existent are influences of market changes on political developments and regulations. An example for such a development is the increasing regulatory activity on genetically modified organisms whereas these products are anyhow not purchased to a significant extent in Western Europe.

As a summary, different – market and non-market – paths of influence exist where market and non-market issues influence the economic success of companies. Whereas conventional management tends to focus on market issues and market processes of influence only, sustainability management adds economic value to management by identifying, analyzing and managing non-market aspects and processes in addition and in relation to market issues and processes. The goal for sustainability management is thus to find methodologically convincing approaches to dealing with these cause-and-effect chains. Management control constitutes one such approach which supports the translation of general corporate sustainability strategies into action. It faces the challenge of identifying market and non-market sustainability issues, evaluating their relevance to success and supporting management in its decision-making and action-taking.

2 The type of management influences the relevance of sustainability to corporate success

The starting point for an effective management of elements of sustainability relevant to business success is an understanding of their interrelationships. There are however *two essentially different opinions about the effects of voluntary environmental and social measures on economic success*. On the one hand, there is the idea that environmental and social activities that go beyond complying with the law only cause additional costs and thus conflict with the goal of economic success (e.g. Bhimani and Soonwalla 2005 discuss a continuum of effects). This view assumes that every environmental and social activity reduces economic success. Examples given in this context are typically end-of-the-pipe measures such as wastewater treatment plants or filters in environmental protection.

The contrary position is that there is a positive relationship in which business activities advancing environmental and social objectives also increase business success. Typical examples for this positive relationship between voluntary environmental and social activities and business success include lower costs through greater energy efficiency (e.g. Christmann 2000) or customer acquisition through the introduction of natural or organic products (e.g. Burke and Logsdon 1996; Schaltegger and Wagner 2006).

Without going into the reasons for these two contrasting viewpoints (see e.g. Lankoski 2000; Schaltegger and Wagner 2006; Walsh et al. 2000), these examples show that there are activities illustrating both sides and that the relationship between environmental and social engagement (e.g. Griffin and Mahon 1997) and business success will be specific to a given company and will probably be found along a spectrum between these two extreme views. It is

important to note that when making a “business case” for corporate sustainability the sheer number of sustainability activities is less important than *how sustainability management is organised*. Depending on the organization of management, voluntary environmental and social activities will have either a positive or a negative effect on business success. This raises the question about the specific *approaches* needed to develop a business case for corporate sustainability and with the help of management control support it.

3 Drivers for business cases of corporate sustainability

The evaluation of the effect of environmental and social activities on business success must involve variables that account for the contribution of the company to its own business success (cf. Schaltegger and Wagner 2006, 9ff.). The economic effect of sustainability activities can lead to either an improvement or a deterioration in the following economic *performance drivers* (similar on some drivers Olve et al. 1999):

- Cost and risk
- Turnover, price and profit margin
- Innovation
- Work satisfaction
- Reputation, intangible values and brand value

A first step taken by many companies is to use a checklist to examine sustainability activities in the light of these approaches. With the growing importance of sustainability for business success, there is however a necessity to move beyond checklists and to systematically manage elements of sustainability (e.g. Porter and Linde 1995). Management control thus faces the challenge of explicitly taking elements of sustainability into account. The *requirements* of identifying the strategic importance of non-market factors and understanding the mechanisms that relate them to business success demands a fundamentally new approach to structuring sustainability management control.

4 Sustainability management control is currently underdeveloped

Although the term “sustainability management control” has been sporadically discussed, there is not yet a detailed elaboration of the concept. The same can be said, with the exception of Dubielzig (2009), of managerial socio-accounting and control. As far as managerial eco-control is concerned, it has been focussed, both in academic publications and in business practice, for about 15 years on manufacturing processes and management control oriented towards energy and materials flows (cf. for example, Hallay and Pfrieder 1994, Günther 1996,

Schaltegger and Sturm 1995). Eco-control is strongly based and dependent on the development of environmental management accounting.

Sustainability is complex and has a great variety of elements that are relevant to business success. These can operate in both market and non-market processes. In order to better recognize and successfully manage these elements however it is essential that an *expanded understanding of management control be developed, as well as a broader but well-structured concept of sustainability management control.*

Since the balanced scorecard (Kaplan and Norton 1992) systematically integrates non-financial factors into management (cf. Kaplan and Norton 1992), it offers great potential for structuring a broader concept of management control that also includes non-market aspects.

5 The Sustainability Balanced Scorecard (SBSC) as a framework for structuring sustainability management control

A central task of strategic management control is turning strategic planning into strategic management. The Balanced Scorecard (BSC) is able to help in the systematic implementation of strategy as well as in the structuring of a variety of management control perspectives (Weber and Schäffer 2000, 111). In support of strategic management, the BSC helps to take the causal relationships of non-monetary and financial factors into account (Horváth & Partner 2001; Kaplan and Norton 1992).

The Sustainability Balanced Scorecard (SBSC) represents both a strategic management concept as well as a means of measurement, supporting a management logic and performance measurement in the five perspectives of finance, customers, internal business processes, learning and development (cf. Kaplan and Norton 1992; *ibid* 2001) as well as non-market elements of sustainability (cf. Schaltegger 2004; Schaltegger and Dyllick 2002, 38f.). As a management system, the SBSC offers a systematic approach to strategic sustainability management, which leads to a system of key performance indicators. The SBSC is thus an excellent structuring framework for structuring sustainability management control (cf. Figure 2).

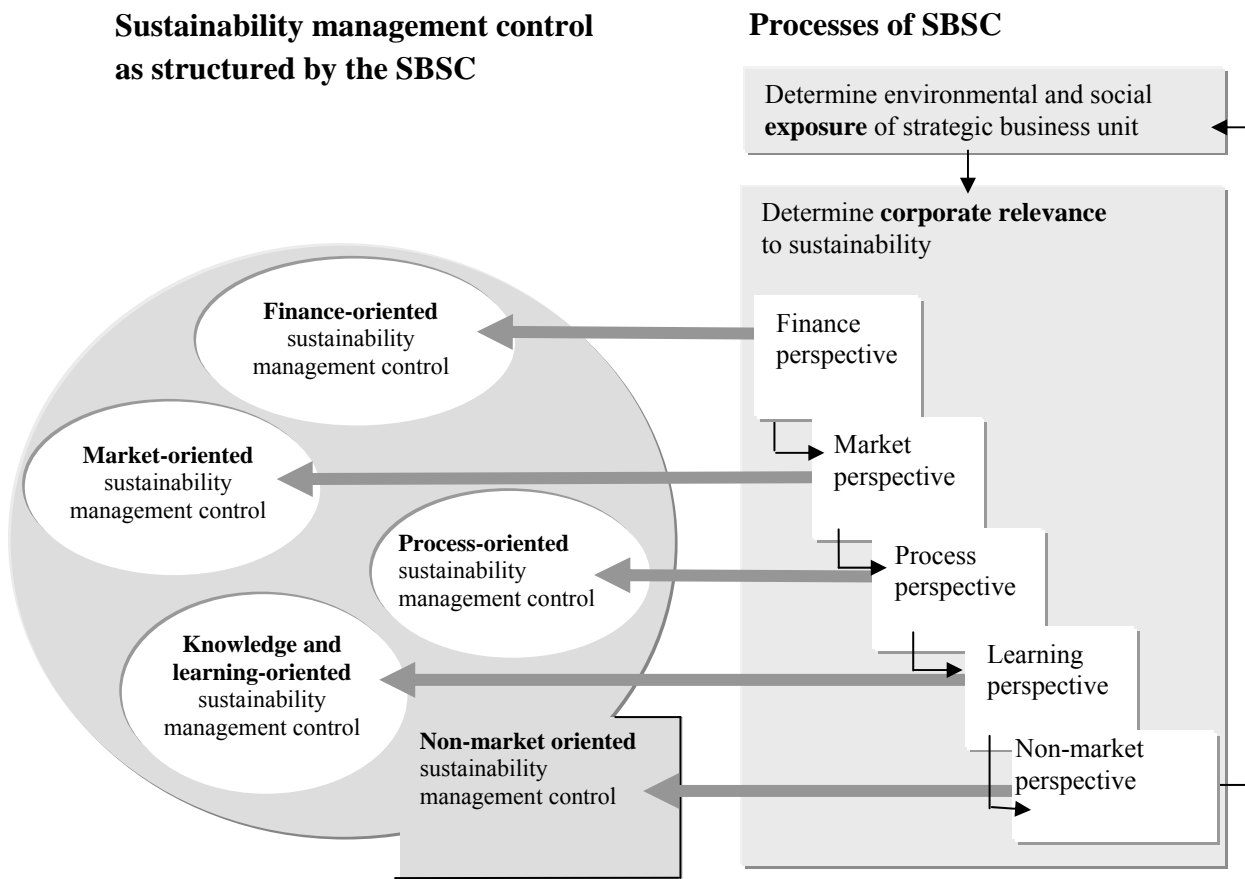


Figure 2: The Sustainability Balanced Scorecard structuring sustainability management control

There has been little in-depth discussion so far of the conceptual or instrumental relationship of the SBSC to management control and sustainability management control. If we take the Sustainability Balanced Scorecard as a structural framework for the elaboration of a concept of sustainability management control, the following orientations, corresponding to the five perspectives of the SBSC, can be distinguished:

- Finance-oriented sustainability management control
- Market-oriented sustainability management control
- Process-oriented sustainability management control
- Knowledge and learning-oriented sustainability management control
- Non-market-oriented sustainability management control (depicted as a framework within which the four market management control perspectives are located)

As a structuring approach that helps to break down management strategy, the SBSC provides a framework to organize sustainability management control and its orientation towards the

effective and efficient implementation of corporate strategy. The starting point is business field strategy and the identification of the environmental and social exposure of a given strategic business unit. Following the top-down approach of the BSC, first the environmental and social elements are identified and their relevance is determined and then they are analysed step-by-step for the finance, customer, process, learning and development as well as for the non-market perspectives. The result of the analysis is the identification of key performance indicators – strategically relevant lagging or leading indicators for each perspective – which form the basis for an operative, perspective-oriented sustainability management control system.

Success factors are identified by developing a strategy map (top-down process on the right-hand side in Figure 1) and key performance indicators (KPIs) are analysed as to their relevance. These make up the starting point for an operative sustainability management control system oriented to a given sub-system (left-hand side in Figure 1). Such a concept of sustainability management control supports management by providing market and non-market information to help it achieve its sustainability objectives as defined by the relevant key indicators from the SBSC perspectives. Controllers work as advisory sparring partners with management, providing it with information and supporting it with the analysis of the actual situation and the development of proposals for target situations. Sustainability management control has the central task of supporting management so that the success of the company can be strengthened *by* the special consideration given to environmental and social issues. This entails that the relevance of elements of sustainability regarding the drivers of business cases are identified and analysed, effective measures are developed and evaluated and the implementation is carried out in a way that strengthens the company's success.

Sustainability management control thus has as its goal the continuous improvement, in an iterative process with management, of environmental and social performance while at the same time furthering the company's business success. This goal is achieved by means of information, decision-making, planning, communication and control systems that provide management with decision-making support.

5.1 Finance-oriented sustainability management control

Sustainability management control based on key SBSC performance indicators is also aligned with current concepts in finance management and unites environmental and social elements with accounting. The task of finance-oriented sustainability management control may be mainly in the provision of information, management and adaptation of accounting concepts

(cf, e.g., Schaltegger and Burritt 2009; Schaltegger et al. 2008). While there are already concepts and in some instances extensive practical experience with individual topics such as shareholder value-oriented environmental management (so-called environmental shareholder value), materials flow accounting or the influence of contaminated sites on (potential) liabilities and sustainability accounting, there is still a need for work in other areas (e.g. social elements and shareholder value, sustainability and economic value added) of finance-oriented sustainability management control.

5.2 Market-oriented sustainability management control

An effective management of company activities cannot be ensured without sufficient attention to market success. Thus especially ecologically oriented changes in production processes or changes in product design can have a considerable (potentially positive or negative) influence on sales and market acceptance, which means that a rethinking of communication and marketing is necessary.

The development of market-oriented sustainability management control can begin with company-internal customers asking for management control services and with the clarification of what new management control services could be important for existing and new customers. Contact persons can be found in production, human resources as well as the sustainability officer. These people should be involved in discussions of the KPIs at regular intervals and writing the public sustainability report.

The objective of market-oriented sustainability management control is to create a *specific relationship between a company's sustainability activities and its marketing success*. This requires good cooperation with the marketing department and includes dealing with questions ranging from product development to marketing communication and distribution. It can also include issues of optimising products and *supply chain costing and management control* (cf. for example, Seuring 2001). This means that the performance indicators are extended beyond the boundaries of the company, while being clearly targeted at ecological and social improvements in the market-relevant overall performance. There is thus a close relationship to process-oriented sustainability management control.

5.3 Process-oriented sustainability management control

The focus of environmental management accounting and eco-control on production processes has tradition (cf. for example, Günther 1996; Hallay and Pfriem 1992; Schaltegger and Sturm 1995, also for published case studies). In the foreground are financial indicators in production

as well as the relationship between non-financial indicators in production and financial results (see e.g. Jasch 2009; Schaltegger et al. 2008). A process-oriented sustainability management control however goes beyond a concentration on environmental problems with (technical) production processes. Alongside production processes other business processes such as innovation, management, logistics or customer service are a part of the process perspective of the SBSC. Many “management fads” such as lean management, systems reengineering or total quality management essentially involve a process orientation. Some of these approaches can at least to an extent be found in environmental and quality management (e.g. total quality environmental management).

The most important steps of process-oriented sustainability management control include the analysis and optimisation of processes. Distinctions can be made here between core processes and core process chains, the definition of customer, social and environmental requirements, the implementation in causal relationships and measurable indicators as well as internal reporting.

Process optimisation demands motivated and competent employees. Since effective and efficient sustainability management may necessitate profound and continuous change, sustainability management control must consider ecological learning processes and motivation.

5.4 Knowledge and learning-oriented sustainability management control

With the growth of information technology, consulting services and the rising share of services even in material-intensive industries such as the automobile and machine tool industry, the importance of know-how, information and employee motivation is increasing. Knowledge management includes not only the use of IT solutions in environmental and social management (e.g. environmental databases and software) and the provision of training seminars. It is much more important to enable employees to create, identify and successfully implement innovations. Sustainability management control is challenged to provide support in the chain from data retrieval to the successful implementation of know-how. The *structuring* and *networking* of information to business-relevant knowledge about sustainability as well as the support of a learning and innovation-friendly *corporate culture* serve an efficient exchange of knowledge between employees and external experts.

These relationships are soft and poorly quantifiable and there is a danger of undertaking actions under the name of knowledge management that have little effect. It is thus crucial to *focus* on those areas that a prior SBSC analysis has shown are relevant to business success.

This can include non-market processes in the social, legal and political environment of the company.

5.5 Controlling non-market elements of sustainability

The market is shaped by market parameters and is a social, political and legal construct. Since they can change the rules governing the market, in certain cases non-market factors can have a more fundamental character than market variables. The non-market environment can be divided into socio-cultural, legal and political factors.

Socio-cultural issues involve the social acceptance or legitimation of business activities and the provision of business products and services, traditions, social values, media reactions and public opinion. An important part of issue management involves the relationship to opinion leaders, trendsetters and other key organisations and individuals.

Management control of non-market factors also takes into account those legal developments relevant to the company. An interface between the socio-cultural and legal environment is provided by voluntary standards of environmental and sustainability management (such as for example EMAS, ISO 14000, ISO 26000). A central challenge for small and medium-sized enterprises is attaining an overview of the innumerable social and environmental laws as well as ensuring legal compliance with such legislation. Multinational corporations are additionally confronted with a great variety of national legal systems. The dynamic development of legal conditions and the increasing importance of EU regulations create special difficulties. Management control oriented towards legal compliance will rarely have a strategic position in a company. Its importance is more in the management of hygiene factors. Its task is in providing cost-effective legal compliance through systematic analysis and the anticipation of changes in the legal environment.

Interest-group processes often have a very direct influence on the ability of management to take action yet they are rarely analysed explicitly. Interest-group activities are however the most effective way of pursuing goals for a number of stakeholders, especially NGOs. In spite of the great importance of interest-group processes in many industries, the approach in this area of management is often intuitive. There is not yet a sustainability management control system oriented towards interest groups, even though over the past ten years basic management concepts have been developed.

If non-market elements are seen to be strategically relevant when developing the SBSC – taking the form of performance drivers such as corporate reputation or social trends – then it is important to explicitly manage them using non-market oriented sustainability management

control. However even when non-market environmental and social factors prove to be “only” hygienic factors for a company, sustainability management control can still help to *efficiently* manage legal compliance issues. The task of management control of non-market elements of sustainability then takes on the character of information provision. In situations of great strategic relevance, by contrast, the role of management consulting plays a crucial role.

6 Outlook

The sustainability balanced scorecard is a management and measurement concept that systematically accounts for elements of sustainability according to their relevance for business success in strategic management. The analysis of causal chains and the development of a strategy card create the conditions for an indicator-supported strategic measurement and management system.

Sustainability management control based on the SBSC concept has five different variations: a finance-oriented, a market-oriented, a process-oriented, a knowledge and learning-oriented and a non-market oriented sustainability management control. Figure 3 shows possible generic indicators and performance drivers for sustainability management control based on the five perspectives of the SBSC. The decisive criteria for the development of services and performance indicators for sustainability management control must be its contribution to business success.

Type	Possible indicators	Possible performance drivers
Finance-oriented	Shareholder value, RONA	Minimizing contaminated sites, low emission costs
Market-oriented	Market value, turnover	Market acceptance, higher prices for sustainable products
Process-oriented	Innovations, process efficiency	Sustainability risks in supply chains, material flow costs
Learning and development-oriented	Innovation potential	Database services and use of sustainability information
Non-market oriented	Reputation, legal compliance	Media response, awards

Figure 3: Possible generic indicators and performance drivers of sustainability management control based on the five SBSC perspectives

These five perspectives of sustainability management control yield the following “internal customers” as potential partners:

- The *sustainability management department* and the *strategic planning department* as an integrated component of sustainability management control

- The *accounting and management control department* for finance-oriented sustainability management control
- The *market research and marketing department* for market-oriented sustainability management control
- The *production management and the R&D department* for process-oriented sustainability management control
- The *human resources department* of the company for knowledge and learning-oriented sustainability management control
- The *public relations office and the strategic management unit* for non-market sustainability management control

This role as an interface allows sustainability management control to take on a coordination and integration function that does justice to the interdisciplinary character of sustainability management. However there is still the challenge of making a real contribution to the various functional areas of a company. This complex challenge should not however act as a deterrent, because sustainability management control takes on a role of moderation and consulting that would be necessary in any case. The danger of dilettantism in many functional areas only exists when the internal customer orientation of sustainability management control is confused with that of an internal police officer pursuing environmental and social wrongdoings, a task that at any rate would be doomed to failure.

The concept of an SBSC-based sustainability management control outlined in this paper needs to be further developed, as even progressive companies manage individual functional areas in a fragmented fashion. If we follow the logic of the SBSC, which serves to break down and implement corporate strategy and support the elements of sustainability relevant to business success, then it becomes apparent that, if elements of sustainability relevant to business success are to be systematically accounted for, management control should be more closely involved.

Literature

- Bhimani, A. & Soonwalla, K. (2005): From conformance to performance: the corporate responsibilities continuum. *Journal of Accounting and Public Policy*, Vol. 24, 165-174.
- Burke, L. & Logsdon, J. M. (1996): How Corporate Social Responsibility Pays Off, *Long Range Planning*, Vol., 29, No. 4, 495-502.
- Christmann, P. (2000): Effects of 'Best Practices' of Environmental Management on Cost Advantage: The Role of Complementary Assets, *Academy of Management Journal* Vol. 43, 663-680.
- Dubielzig, F. (2009): *Sozio-Controlling in Unternehmen. Das Management erfolgsrelevanter sozial-gesellschaftlicher Themen in der Praxis (Social management control. The management of social topics in corporate practice)*, Wiesbaden: Gabler.
- Esty, D. & Porter, M. (1998): Industrial Ecology and Competitiveness. Strategic Implications for the Firm, *Journal of Industrial Ecology*, Vol. 2, No. 1, 35-43.
- Griffin, J. & Mahon, J. (1997): The corporate social performance and corporate financial performance debate: Twenty five years of incomparable research, *Business & Society*, Vol. 36, No. 1, 5-31.
- Günther, E. (1996): *Ökologieorientiertes Controlling. Konzeption eines Systems zur ökologieorientierten Steuerung und empirischen Validierung (Ecologically oriented management control. Concept of a system to pilot and empirical validation)*, München: Vahlen.
- Hallay, H. & Pfriem, R. (1992): *Öko-Controlling: Umweltschutz in mittelständischen Unternehmen (Eco-control. Environmental protection in SMEs)*, Frankfurt: Campus.
- Hemphill, T.A. (1997): Legislating Corporate Social Responsibility. *Business Horizons*, March-April, 53-58.
- Horváth & Partner (Eds.) (2001): *Balanced Scorecard umsetzen (Implementing the Balanced Scorecard)*, Stuttgart: Schaeffer-Poeschel.
- Jasch, C. (2009): *Environmental and Material Flow Cost Accounting*, Dordrecht: Springer.
- Kaplan, R. & Norton D. (1992): The Balanced Scorecard. Measures that Drive Performance, *Harvard Business Review*, January-February, 71-79.
- Kaplan, R. & Norton D. (2001): *The Strategy-focused Organization. How Balanced Scorecard Companies Thrive in the New Business Environment*, Boston: Harvard Business Press.
- Lankoski, L. (2000): *Determinants of Environmental Profit*. Helsinki: Helsinki University of Technology.
- Olve, N.-G.; Roy, J. & Wetter, M. (1999): *Performance Drivers*. Chichester: Wiley.
- Porter, M.E. & Linde, C. van der (1995): Toward a New Conception of the Environment-Competitiveness Relationship, *Journal of Economic Perspectives* Vol. 9, No. 4, 97-118.
- Schaltegger, S.; Bennett, M.; Burritt, R. & Jasch, C. (Eds.) (2008): *Environmental Accounting for Cleaner Production*, Dordrecht: Springer.
- Schaltegger, S. & Burritt R. (2009): Sustainability Accounting for Companies. Catchphrase or Decision Support for Business Leaders?, *Journal of World Business*, (2009), doi: 10.1016/j.jwb.2009.08.002 (print forthcoming, 2010, *Journal of World Business*, Vol. 45, No 4).
- Schaltegger, S. & T. Dyllick, (Eds.) (2002): *Nachhaltig managen mit der Balanced Scorecard (To manage sustainably with the Balanced Scorecard)*, Wiesbaden: Gabler.
- Schaltegger, S. & Sturm, A. (1995): *Eco-efficiency through eco-control*, Zürich: VDF.
- Schaltegger, S. & Wagner, M. (2006): *Managing the Business Case of Sustainability. Sustainability Performance, Competitiveness and Business Success*, Sheffield: Greenleaf.
- Schaltegger, S. (2004): Sustainability Balanced Scorecard. Unternehmerische Steuerung von Nachhaltigkeitsaspekten (The Sustainability Balanced Scorecard. Piloting sustainability issues of companies), *Controlling*, No. 8/9, 511-516.
- Seuring, S. (2001): *Supply Chain Costing*, München: Vahlen.

- Walsh, J.; Weber, K. & Margolis, J. (2003): Social Issues and Management. Our Lost Cause Found, *Journal of Management* Vol. 29, No. 6, 859-881.
- Weber, J. & Schäffer, U. (2000): *Balanced Scorecard & Controlling: Implementierung, Nutzen für Manager und Controller; Erfahrungen in deutschen Unternehmen (Balanced Scorecard and management control. Implementation, benefit for managers and controllers)*, Wiesbaden: Schaeffer-Poeschel.