

Integrated Management Systems as a Corporate Response to Sustainable Development

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ABSTRACT

The concept of sustainable development has become widespread amongst government agencies, politicians, corporations and other organizations throughout the world. As a response to the challenge of sustainable development, Swedish corporations have shown a growing interest in integrating their efforts regarding management of environmental, quality related and social issues. Companies in the engineering industry are particularly active in this area. This paper describes the paths three world leading Swedish engineering corporations have taken in their striving towards sustainable development, and analyses why and how they are integrating their different management systems. We finally analyse and discuss, from a theoretical point of view with focus on subjects as well as methods of management, whether these integrated management systems in use can support the companies in their management of sustainability. Copyright © 2005 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

SUSTAINABLE DEVELOPMENT AS A CONCEPT AND THE IMPLICATIONS IT MIGHT HAVE IN CORPORATE context is relatively new. This means that companies that are already dealing with these issues take part in the process of defining what sustainable development really means on a strategic level in the corporate context. Instead of having several separate management systems, companies see benefits such as timesaving and reduced costs in integrating systems such as ISO 14001, ISO 9001, OHSAS 18000 etc. But is integration of standardized management systems the way to reach the goal of sustainable development within the companies?

The aim of this paper is to study how corporations handle the transition from working separately with environmental issues to integrating their management systems in trying to reach a system that can handle sustainable development. These four key questions are used to close in on this aim.

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- How are the management systems integrated in the corporations?
- What external and internal factors shape the management practice?
- What driving forces are there for integrating different management systems?
- To what degree can a management system handle sustainable development?

Theoretical Perspectives

Management for Sustainability

Our starting point for the analysis is that a logical division can be made when studying management for sustainable development: the content of management (what to manage) and the form of management (how to manage). What the content of management for sustainability should be is under debate. The international association Global Reporting Initiative (GRI) is one of the prominent in the debate on sustainable development in the corporate context. The association has launched the concept of 'triple bottom line', which is a broadening from the traditional environmental reporting to also include social and economical issues (cf. Hedberg and von Malmborg, 2003). Welford and Jones (1998) have gone one step further in widening the perspectives with an effort to identify elements within which companies should set goals. The seven elements, general principles (such as accountability and openness), equity, futurity, biodiversity and animal rights, local action and life cycle impacts, give a broad perspective as to what could be a paradigm for sustainable development.

The way to sustainable development can, according to Welford and Jones (1998), be described as a three-dimensional matrix, where the first dimension is to broaden the measurement to include indirect impacts on the environment. The second is to get a long-term perspective into the management process. The third dimension is for the company to include social issues in management. Even if sustainable development is hard to define, these dimensions could be a basis for describing the path there, write Welford and Jones (1998).

The form of management also has effects on the outcome of a management system. Merchant (1998) describes three forms of corporate management: action control, results control and personnel/culture control. Action control means direct control of how employees act in every situation. Results control means steering towards a certain goal; it is up to the individuals to decide how to get there. Personnel/culture control is the form to strive after according to Merchant (1998). It gives more room for employee participation and flexible decision-making.

These terms have their equivalence in an environmental management context as described by Dodge (1997). The terms he uses are *bureaucratic control*, which means a wide ranging system driven by rules and procedures depicting actions carried out by divisions, groups and individuals, *output control*, which is the same as results control with the difference that the result in this case is the level of environmental impact, and *culture/clan control*, where the companies' core values are known to all employees, and act as a guideline for all actions. This form of management demands employee awareness about the goals of the company and motivation to work well without any extra material rewards (Dodge, 1997). We draw on Dodge (1997) when he says that the culture of a company both has a significant impact on, and is affected by, the form of management and control systems in use.

Integrated Management Systems in Theory

Standardization is a significant element of society today and standards are used in more and more areas (Brunsson and Jacobsson, 2000). The most commonly known management standards, ISO 14001 (environmental management) and ISO 9001 (quality management), are adjusted to function together. The

trend is that for each new version these standards become more and more similar. In the new version of standard for quality management ISO 9001:2000, some demands are increased or changed. The most significant change is the input of target-orientated management, which means that the line of production is in focus rather than each department working separate.

In recent years a number of new standards have arrived, with focus on working environment and social responsibility. Among these are OHSAS 18001, a standard for the working environment that is already in use, which is based on ISO 14001 and has been developed to work well with ISO 9001 and ISO 14001 (Lundh, 2002). Social Accountability 8000 (SA 8000) and AccountAbility 1000 (AA1000:2000) are more general standards with social and ethical issues in focus.

There is an ongoing development of an ISO standard that is meant to handle sustainable development and will be called Social Responsibility (SR). The Swedish representative in the international working group, Lennart Piper, has hopes for this standard to mean an integration of environmental quality and social issues (Piper, personal communication, 11 February 2003). It is not yet decided how comprehensive the standard will be and what areas it will cover. All these management systems have a common ground as they all have the same basic structure, the plan–do–check–act cycle.

Aside from the standards there is an ongoing debate among business associations that mainly concern how to report on sustainable development. As mentioned, GRI has launched the 'triple bottom line' concept, which means that the company's results are expressed in social, environmental and economical terms (GRI, 2002). Another common concept in the debate is corporate social responsibility (CSR). CSR is also the name of the international association that coined this concept. The way to achieve corporate social responsibility in the corporation is a change of focus from creating profit for shareholders to having a good relationship with stakeholders. When CSR is discussed there is a tendency to emphasise the social aspects of sustainable development (SER, 2001). Nature or environmental issues are not mentioned as one of the actors; governmental agencies are meant to speak for nature.

Corporate Behaviour and Strategies for Management

Why do corporations work with sustainable development at all: what are the driving forces? One of the forces is the external influence that all organizations are affected by. We draw on the theory of Scott (2001) where he says that companies exist in an environment where there are regulative, social normative and cultural cognitive demands rather than just production demands. Representing the neo-institutional organizational theory, Scott describes that these are the three roles that institutions can play. This means that for a company to develop it requires not only natural resources and technical information but also acceptance and credibility from its social environment (Scott, 2001).

One way for a company to obtain this credibility is to adjust to the current norm in the organizational field. DiMaggio and Powell (1983) use the term isomorphism to describe the phenomenon that organizations within the same field resemble one another. Isomorphism can make organizations more alike without them getting any more effective, say DiMaggio and Powell (1983). A standard could be one example of an agent for isomorphism (Scott, 2001).

Method

In this article three Swedish corporations in the field of engineering industry have been studied. All companies have enterprises in several countries, which is of importance as to how social and ethical matters are approached. Among several companies the ones were chosen that had the most comprehensive sustainability reports, and also were in the same line of trade.

Interviews were conducted at each company with three or four employees who work with aspects of sustainable development according to the company's own view (see Table 1). An interview guideline was used, but there was flexibility as to how the questions were formulated and the order in which they were put. The statements from the interviews were sorted into categories in order to gather the different companies' views on the same topics. The categories were (i) the driving forces for working with sustainable development, (ii) those for integrating their different management systems, (iii) their strategies for management, (iv) what aspects are being integrated into the management system and (v) what form of management is in use.

Integrated Management Systems in Three Swedish Engineering Corporations

Here the results from the interviews at the three companies are presented, summarizing their experiences of working for sustainable development by integration of management systems.

The Organization of Management and What is Included

All companies in this study have management systems that are certified according to the standards ISO 14001 and ISO 9001. Two of the companies are preparing to be certified in accordance with OHSAS 18001 and already have this system working within some of their factory premises. All the studied companies coordinate their management of environmental, security and health related issues. They also all have a policy for ethical and/or social issues. Often social and ethical issues are perceived as being practically the same, but sometimes ethical questions are seen as more overarching while the social issues are more connected to the personnel management.

The areas that the companies work the hardest with at the present differ between them. Characteristic for one of the companies (B, see Table 1) is that a lot of effort is put into ensuring the safety of the staff in the initiative 'zero accidents'. At another company (A), they identify human resources as an aspect of sustainable development. They are making an effort to maintain a good relationship with universities in order to secure a sustainable access to sufficient human resources. Another characteristic for this company is the focus on integrating the management systems for environment, safety and health (ESH) with the system for quality. The third company (C) directs its system for stakeholder dialogues.

Core business area	Company A	Company B	Company C
	Submersible pumps and mixers	Rolling bearing and seals	Power and automation technologies
Area of responsibility for interviewees			
Environment safety and health (ESH)	x	x	x
Sustainable development			x
Quality		x	
Personnel (and ESH)	x	x	
Economy	x		
Market communication	x		
Design for environment			x

Table 1. Respondents to the interviews by area of responsibility

The challenge they perceive is to get acceptance and recognition for the new system amongst employees. The differences can be due to in what phase of development they are and what has been dealt with before.

The Form of Management and Communication

In this study the terms action control, results control and personnel/culture control are used to describe the forms of control systems for companies. In practise the studied companies have a mix of all the three forms. Anyhow, it can be interesting to note some tendencies. At company C results control is used when it comes to the division of product development (and this is probably the case at the other companies too). At company A they see the transition to the new version of quality management system ISO 9001:2000 as slightly problematic as it might require organizational changes. This is because the new version has demands of process management (e.g. results control) where quality should be measured in the line of production and not at each department.

Driving Forces for Sustainable Development and for Integrating Management Systems

The companies that were studied sell their products foremost 'business to business'. This means that they are highly influenced by other companies as both suppliers and customers. In the process of starting to think in terms of sustainable development all the studied companies experience a change in the interaction with actors around them. In the co-operation with suppliers they are now able to make demands in environmental issues. One of the companies has even developed a system to review orders from customers from an environmental and ethical point of view.

The driving forces for the studied companies to work with sustainable development are several. There is a need for an effective way to handle risks of different nature, especially in light of former experiences with bad publicity. Reactions amongst stakeholders, especially negative ones, work as an effective driving force for the studied companies. Two of the companies had had experience of cases where the company's conducts were seen as unethical, and now they are keen on appearing as role models in ethical matters. At all companies upholding a strong brand and a good image is a central issue. External communication such as sustainability reporting has gained importance as a tool for communication of the company's values. All three companies mention personal engagement as another driving force. They talk about both the importance of engaging people as role models and the question of how to raise the engagement among other employees.

There are other incentives for the integration of different management systems. Most of the interviewees state that the integration will lead to a more effective and simpler form of management structure. One of the companies also identifies that in integrating environmental management with other issues there is a possibility to tie the environmental issues tighter to the core values of the company.

Discussion

It is against the background of the demands of actors surrounding companies that standards for environmental and quality related management have come up. The background for these management systems to be so frequently in use is that they have proven to be effective tools for initiating, structuring and following up on management activities. Standards mean coordination and simplification but can also lead to decreased space for innovation (Brunsson and Jacobsson, 2000).

The Content and Form of Management for Sustainable Development

The content of management is not just a question of which areas to cover but also what to include in each area. How for instance is environmental performance perceived? Is it merely a measurement of the discharge or is it a broader lifecycle perspective where indirect impacts are considered as well?

As mentioned above, what the studied companies include in the concept of sustainable development differs slightly, though they all base their view on the definition by GRI where sustainable development is equal to social, environmental and economic issues combined. In this article quality related issues, ethics and futurity are also included in the concept of sustainable development. We believe that the long-term perspective is the foundation of sustainable development (see Figure 1(a) and (b)).

What form of management is best when aiming at making corporate practice sustainable? Drawing on Dodge (1997), the corporate culture has a crucial role for the creative process that is needed in order to create and develop an environmental program. Both Dodge (1997) and Merchant (1998) advocate a cultural form of management. Jones and Welford (1997) describe a management system they say might possibly be able to handle the aim of sustainable development. The structure is similar to that of ISO 14001 but it has one important difference: the driving factor is the input from stakeholders and cultural change is the outcome of the process. The initiative taken by one of the studied companies (C) to create stakeholder dialogues connected to every project can be seen as a step towards this kind of stakeholder dialogue.

Incentives for Sustainability Management

We believe the initiatives towards sustainability are an effort to create or increase credibility. The companies want other actors' support for their actions. This is most evident at one of the studied companies, where the goal for their dialogues with stakeholders is expressed as 'license to operate'. According to Scott (2001), legitimacy is not to be seen as a constant resource but rather a relation to relevant laws and regulations, normative support and acting in accordance with cultural frameworks. From this we can establish that keeping up legitimacy requires a continuous process.

At the studied companies, simplification is seen as the foremost reason why they want to integrate their management systems. The respondents feel that it has been important that they have experience of management of quality and environment. It is therefore interesting to note that they do not see any risks that other areas where this experience does not exist (for example social management) will have

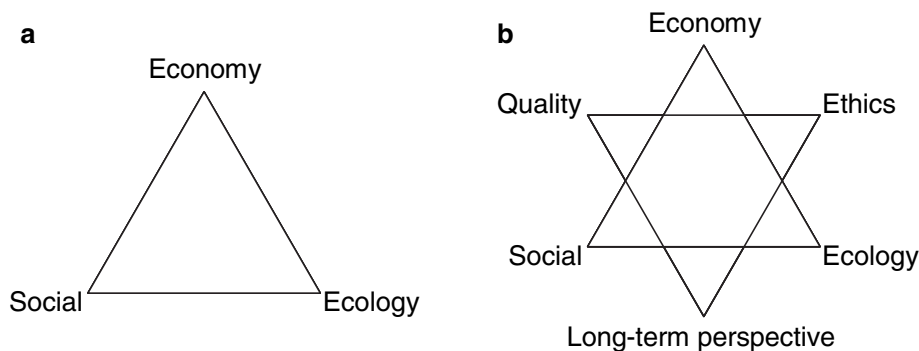


Figure 1. Traditionally sustainable development is seen as a combination of ecological, economical and social issues (a). In this article quality related issues, ethics and futurity are also included in the concept of sustainable development (b). We believe that the long-term perspective is the foundation of sustainable development.

less importance in the combined management system. The explanation for this might be that they see the experiences as applicable to new areas.

At one of the companies (C), they have identified that they act in their own interest when doing more than they are legally bound to. In this way they do not have to have detailed management and are less sensitive to legal changes. We have also seen examples that the companies respond more to what stakeholders say than just following the demands of the standards. At another company they sometimes feel that the quality demands of ISO 9001 are too low, and their customers have much higher demands. When the standards in this way are put out of play by working proactively, we claim that the company will experience more freedom of action.

To What Degree Can Management Systems Handle Sustainable Development?

Standardized management systems as they are today can be perceived as bureaucratic and stiff. According to Dodge (1997) a strictly regulative system is favourable when the employees have low readiness to receive environmental messages. However, when one has succeeded in selling the message and employees are more motivated to take their own environmental responsibility, delegation and participation are a more effective manner of management.

Criticism has been directed towards standardized management systems such as ISO 14001 for not promoting the flexibility needed to handle continuously changing environmental issues (see, e.g., Moxen and Strachan, 2000; von Malmborg, 2002). Since the management standards of today mostly rely on action control and to some extent results control, it is possible that they are effective in aiding the company in the beginning but in later phases more or less obstructs innovation.

By the experiences gained from this study we believe that there is some support for this criticism. The companies in this study have come the farthest in areas where the standards do not demand it. Against this argument it could be claimed that the good examples would be something that all companies did if there were a standard telling them to. Increased standardization would then be favourable. Despite this, our interpretation is that management systems of today are not in themselves sufficient to achieve a proactive approach on management within the framework of sustainable development.

As mentioned earlier in this article, Welford and Jones (1998) present ideas for management of sustainable development. The driving force in their model is a stakeholder analysis. To have stakeholders' opinions as a driving force in the management system seems like a fruitful idea, especially if the employees are given a strong position among these groups.

Concluding Remarks

There is strong a belief in standardized management systems such as ISO 14001, ISO 9001 and OHSAS 18000 etc. amongst the corporations. Integrating these systems seems to come naturally, almost without reflection, when aiming for sustainable development. The management systems of the studied companies have a lot in common but there are also differences. Co-operation within branch organizations and management standards spread ideas and could explain the similarities. We can also draw the conclusion that what the companies integrate does not always cohere with available management standards. For example, all companies in this study have integrated the environment, safety and health management systems, and this is certified by ISO 14001, that only covers environmental management.

The challenge the companies are up against is an environment with actors calling for more information regarding environmental and social performance. We could see two main driving forces in this study. One is the increasing demand both externally and from within the companies not to work sepa-

rately with environmental and social issues. The other is the simplification and higher effectiveness that is desired. Generally, working with sustainable development has broadened the way that the companies perceive their responsibilities towards the community.

To answer the question of whether management systems can handle sustainable development, we draw the conclusion that there are elements of the standardized management systems that might hinder rather than promote innovation in companies with well established environmental management. At all studied companies initiatives have been taken in areas that are not regulated by the standardized management systems. It seems profitable to act proactively and do more than legal demands or demands in the standards, because this gives the companies more freedom of action, though it would not be realistic to ask corporations to single-handedly reach sustainability in their practice and in their community. However, as Welford and Jones (1998) point out; though sustainable development is such a great challenge that it requires cooperation on every level, corporations and their initiatives have one important role to play.

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