

**Sustainable Development Management Systems in Global
Business Organizations**

Ian Sealy

Walter Wehrmeyer

Chris France

Matthew Leach

Centre for Environmental Strategy, University of Surrey

Ian Sealy, CES, Faculty of Engineering & Physical Sciences, The University of Surrey,
Guildford, Surrey, GU2 7XH, Email: i.sealy@surrey.ac.uk Telephone + 33 1 7112 3045

Abstract

Global Business Organizations (GBOs) – initially defined as those with less than 50% of their revenue in any one continent, and more than 20% in each of at least three continents - are unlike national, regional or multinational (MNC) business organizations in a number of critical ways. They have:

Multiple, and potentially conflicting stakeholder interests that can and do change rapidly and unpredictably

Trans-cultural employee & management populations, often arranged in complex matrix structures

Diverse regulatory compliance requirements, coupled with a need to comply with both internal and external ethical standards

A need to globally manage their brand and their reputation, and to be responsive to public opinion

Large organizational and geographical distance between their headquarters and their operational sites

Organizational and business models that are significantly more complex than those found in MNCs and regional or local companies

Existing environmental and sustainability management system models, and policy tools, are not adequate for the needs of GBOs for four reasons: first, existing systems protocols and standards are usually limited in their scope to one aspect (e.g. environment, social, etc.) of the business management process; second, contemporary sustainability codes and standards are normally intended to guide policy development rather than to facilitate management system

implementation (CERES, Global Compact, Sullivan); third, work on sustainability standards has generally been limited to three aspects (economic, environmental, and social) of business behaviour, which is not adequate for current or future GBO business models or requirements; and fourth, these standards do not accommodate the requirement for environmental or sustainability management systems to operate across a diverse and sometimes contradictory range of regulatory regimes.

Given these limitations, a new sustainability management system model is proposed for use in GBOs. First, it expands the established triple-bottom-line approach to embrace wider range of business activities, specifically: ethics; ecology; reputation; social; quality; and economic. Secondly it incorporates a 'cylinder of influence' concept that links stakeholders to the entire business process chain, from supplier, through to customer.

This paper describes the development of a definition for a GBO, briefly reviews established standards and identifies their limitations, and presents a suitable model for the management system.

Key Words

Sustainable Development Management Systems, Business Organizations,

Introduction

There are, as part of a long-term trend, growing demands on Global Business Organizations (GBOs) to demonstrate good corporate citizenship (Davis & Stephen, 2006), and these demands may include an expectation of leadership in sustainable development programs. GBOs, as a consequence of their structure, operating practices, and exposures, are subject to demands and scrutiny unlike those experienced by trans-national, regional, or local business organizations. The governance systems, the transparency of their disclosures and the quality of their products, services, and customer relationships must therefore be of the highest standards (Palmisano, 2006). These demands are somewhat different from other smaller or less complex businesses, and this raises questions regarding the definition, and attributes of GBOs which may help understand these demands.

A Research Definition of a Global Business Organization

In order to provide a set of constraints for the application of a research management system model, and also to allow for the selection of candidate organizations for validation of the model, a working definition of a GBO is required. Published definitions of GBOs, the majority of which emanate from business schools, are inconsistent, as demonstrated below. The terms global business, trans-national business, and multi-national business are often used interchangeably.

Redding (2006) uses a definition, derived from Rugman and Verbeke (2004), based on the distribution of an organization's revenue: no more than 50% of the revenue should derive

from the organization's home region and at least 20% of the revenue must come from each of two other regions. This definition offers the very important advantage of precision, as accounting standards for the calculation (although not the geographical distribution) and reporting of revenue are well established, data is normally audited, and disclosure is frequent. However in Redding's work, the use of geographical areas was limited to three regions (with Africa excluded) and the data was limited to large, publically traded companies.

A market-strategy-based approach was used by de la Torre (2001). GBOs were defined as those organizations that treat the world as a single market. Multi-national businesses are defined as those that comprise a network of variably self-sufficient subsidiaries, and international businesses have a large home market but participate 'opportunistically' outside their home country. This definition suggests that a GBO has a global business chain, which is important, but the proposed test of globalization is qualitative, and therefore not suitable for research work.

A definition from the Thunderbird Business School (undated and unattributed) embraces behaviours, objectives, and revenue distribution. In this model, a GBO has global aspirations, a global (and multicultural) workforce, a global supply-chain, and more than 50% of its business (revenue) from outside its home market.

The multi-dimensional definition proposed by the Thunderbird Business School is most closely aligned with a more detailed multi-dimensional GBO analysis required for research work. But it does not exhibit the quantitative precision provided by the analysis of revenue distribution in Redding's proposal (and takes a US-centric view of the business world).

A viable research definition must therefore be developed from each of these sources. Table 1, below, defines the four criteria which will be used for identification and selection of GBOs for research purposes. This definition expands the Redding (2006) and Rugman &

Verbeke (2004) revenue distribution criteria, adding aspects of organization culture and business process, and expanding the eligible population beyond the pool of publically traded companies.

(Table 1)

Global Business Organizations

Characteristics of Global Business Organizations

Organizational structures and cultures in GBOs vary and may be centralized, or decentralized in their approach to distribution of responsibility. A sustainability management system (SMS) that is suitable for use by GBOs must therefore function within multi-dimensional (also known as matrix) organizational structures that have shared and distributed management responsibilities. National boundaries are becoming less and less relevant to the development of corporate practice (Palmisano, 2006). The global nature of GBOs influences the development of their management systems in specific ways.

The task of institutionalizing an SMS may be more difficult, particularly since management attitudes towards this aspect of organizational management may vary (Lindell & Karagozoglu, 2001). However by virtue of their size and resources GBOs have more capacity for the development and implementation of management systems and processes than small or medium sized, or even national enterprises have (Stanwick & Stanwick, 1998). This research proposes that in order to be successful in a GBO the SMS must be an integral part of the organization's management process and perhaps even the superior, or core management system in the organization. In the interests of efficiency, the SMS will often share management tools,

business processes, and corporate policies with other components of the business management system.

All GBOs have a corporate brand (or as a minimum a reputation) and although this is an intangible asset, it may have a substantial value (Utting, 2005). Changes in global marketplaces require that companies fulfill a variety of roles to satisfy a range of stakeholders, and simultaneously retain their own identity and values (Gadiesh, 2004). This can be achieved by branding locally, whilst managing globally (Gadiesh, 2004), or by adding local content to the global brand. Brammer & Parelin (2006) state that there must be a 'fit' between the stakeholder environment within which a business operates, and its social performance requirements. GBOs need to respond to this by developing and implementing global strategies that take account of the trans-cultural footprint that they have, and that can protect their brand in a wide variety of circumstances. This raises the question of the nature of the transition from environmental management to sustainability management: is it only a change in management system scope, or are other changes required? A successful and credible SMS model must therefore both support the organization's brand, and (if at all possible) provide 'future proofing' in anticipation of changes in the expectations, and tactics, of external stakeholders. GBOs must be able to function and thrive in an unpredictable world and this suggests that changes in management system scope are not likely to be sufficient for an SMS to be successful. There must also be changes in management system application, as suggested by Callinan (2007). There may now be a greater requirement for corporate SMSs to manage the value and perception of the organization's brand: management of environmental impacts therefore becomes a subsidiary activity for the SMS. A possible explanation for this phenomenon is that 'environment' is socially, as well as technically defined. This would mean that in addition to the physical reality, stakeholder perceptions of

environment are increasingly important. Therefore the management of perception is a natural extension of the need to manage environmental impacts.

The extended organizational structures in contemporary GBOs almost invariably include a very diverse employee population which needs to accept the value of, and become engaged in, the sustainable development management process. The SMS therefore should be flexible enough to incorporate and conform to local (national, regional or cultural) requirements. But at the same time the SMS must be robust enough to provide global consistency, via leadership and support, in the implementation and the delivery of performance, and with the level of assurance that results from this. In addition the SMS should be structured so that it can evolve rapidly in response to changing cultural and market conditions.

Madsen & Ulhøi (2001) implicitly express all corporate environmental management actions as a consequence of, response to, or function of stakeholder influence. It is possible that, in a GBO, a global response may require local management in one country to respond to stakeholder actions in another country. Brammer & Parelín (2006) said that there must be a 'fit' between the stakeholder environment within which a business operates, and its social performance requirements. GBOs need to respond to this by developing and implementing global strategies that take account of the trans-cultural footprint that they have, and that can protect their brand and their SMS, in a wide variety of circumstances.

Global operations result in exposure to multiple legal and regulatory compliance regimes. Indeed in some countries, several layers of regulation, and associated enforcement systems exist. A compliance program built on the expectations and practices of a single country (the country of origin, or domicile of the business) will therefore be inadequate for a GBO. Furthermore, organizations will face substantial and sometimes unpredictable variation in regulatory

enforcement practices and in the interpretation of statutes from country to country. Therefore the global adoption of a regulatory compliance system based in the practices prevalent in one nation or region is likely to be inadequate. Using regulatory (non-) compliance as an indicator of, or proxy for environmental performance therefore has only limited value to the global business organization. The complexity of legal demands placed on GBOs suggests that rather than (merely) implementing legal compliance processes, a broader, anticipatory compliance process is required. For example, an organization may make a policy commitment to legal compliance, and then operate in countries where there are no regulatory standards or requirements for environmental or employee protection. In these countries, the legal compliance commitment would not provide the level of assurance required to protect the GBOs' brand, or reputation, or the natural environment that is subject to its impacts. This reinforces the requirement for future proofing of the management system, as noted above.

An ethical or principled approach to compliance implies that the organization must first determine what ethical (or behavioural) standards (or principles) are appropriate and applicable, and also to what extent (if any) they are reflected in relevant regulatory standards. In an increasing number of business operating environments, enforcement is provided not by governments alone, but is supplemented, and occasionally even led by non-government organizations (NGOs) that target compliance with what they consider to be applicable ethical standards. Traditional legal compliance management and assurance systems are not adequate in these circumstances. GBOs will be less effective in the management of their external compliance obligations and exposures if they are responding to initiatives and agendas determined by NGOs, to media demands, or to a multitude of government regulations. Rather, GBOs can (Kolk & Van Tulder, 2001) and should be proactively involved by anticipating, leading, and influencing the

applicable ethical and behavioural agendas (though not, necessarily the legal agenda), and in developing the associated internal compliance processes. However it must be recognized that there may be ethical challenges related to the involvement of business organizations in the development of behavioural standards or principles. GBOs must also, in addition to contributing to the development of public discussion, have effective perception and brand management programs in place to ensure they are anticipating, rather than reacting or responding to external initiatives, as noted previously.

Significant local or regional sustainability aspects and impacts of an organization, or their associated reporting requirements may not be globally significant. In a GBO the SMS must therefore be able to effectively identify, assess, rank, mitigate, and manage aspects and impacts in a variety of operating environments. The system must then allow for the coordination and consolidation of the results in order to ensure that management actions are both consistent with organization policy, and are appropriate to the local business environment. There is also a growing and evolving requirement for global businesses to use a unified internal sustainability reporting system that transcends local or national practice, for instance the one proposed by the Global Reporting Initiative program (GRI, 2006). Similarly, globally significant aspects and reporting requirements may not be relevant at the local level. Consequently the organization may decide to produce either local, or global, or both local and global reports. Gee (2001) identifies major reporting challenges as continuity, comparability, and credibility.

Operational activities of global organizations may extend to areas where environmentally or socially significant infrastructure (e.g. waste management and disposal services, and associated facilities) is inadequate, or even non-existent. An effective response may therefore

involve investment in local infrastructure, changes to operating practice, and the implementation of global (i.e. minimum) standards that the organization will apply.

For many GBOs there is limited value in achieving conformance (as demonstrated by certification) to national (e.g. U.S. EPA Performance Track), regional (e.g. EMAS) or sector-specific environmental standards due to lack of relevance or recognition. Even the reputational value of the ISO 14000 family of environmental management standards varies from region to region: for example, it is widely used in China and Japan, little used in the USA or Latin America (Peglau, 2006). Furthermore, as noted below global standards on sustainability management and performance reporting are either in their infancy, or of limited applicability.

It has been argued (above) that GBOs are different in a number of important and significant ways from trans-national or multi-national organizations, and also from traditional businesses. In particular, brand management and reputation are especially important to GBOs, to the extent that Bråthen suggests that '*international opinion is the new superpower*' (Bråthen, p5, 2007) and GBOs must be positioned to influence, rather than be dictated to by, this superpower. Conversely, regional or national compliance requirements that have been the subject of emphasis in traditional EMS models are less important to GBOs.

Management System Standards

A Review of Existing Standards

Few published and implemented SMS templates appear to exist today. BS 8900:2006 provides recommendations and suggestions on the processes of developing and implementing an

SMS: it is not, and not intended by its authors to be, an SMS template against which an organization can be assessed or certified (unlike the ISO 14001:2004 EMS standard).

Abrahams (2004) has identified and reviewed approximately 100 public domain codes, standards and regulations relating to sustainable development management practices in corporations, from a forty-year period (through to 2004). Many of these had either a very narrow scope (industry or region specific), or address only one functional aspect of a business (e.g. environment, health & safety, or industrial relations). Leipziger (Leipziger, 2003) has reviewed 32 codes and standards within a narrower scope ('corporate responsibility') than Abrahams, although there is a substantial overlap in the material discussed by the two writers. As a consequence of the narrower scope that she uses, most of material referenced by Leipziger has some relevance to the GBO context. However in common with Abrahams, there is little material in Leipziger's review that provides specific management system guidance. Fussler writing about the implementation of the Global Compact (Fussler et al, 2004) identifies a number of the same standards. Drawing on the work of Abrahams (2004) and Leipziger (2003) Table 2 (below) identifies seventeen standards, codes, or principles relevant to the activities of a global business organization.

(Table 2)

Limitations of Existing Standards

So why do these standards not provide a basis for a SMS? Most importantly, several are limited in scope, either to environmental management (ISO14001 and EMAS), occupational health & safety management (OHSAS18001) or industrial relations (SA8000:2001). Any attempt

to develop a SMS from a combination of these four standards would require integration of their respective requirements, and those of other standards, which may be a disincentive to users and which suggests the need for an integrated standard (Oktem et al, 2004, Jørgensen et al, 2006).

Some do attempt to address a broad SMS scope (BS8900, Equator Principles, GRI-G3, ICC Business Charter, OECD Guidelines for MNCs, SIGMA Project), and one of these (GRI-G3) is further limited as it only refers to performance reporting and disclosure. The other five have been designed to provide some degree of guidance on management system structure, or corporate policy content. Four of the standards (EMAS, ISO14001, OHSAS18001, SA8000) offer users the opportunity for certification, verification, or accreditation.

Given its widespread use (110,000 certificates worldwide – Peglau, 2006) we should consider ISO 14001 in more detail. The literature identifies the following limitations:

- Evidence of extra-organizational structural barriers to its acceptance (Welch et al, 2003). This would therefore limit the external, brand-related benefits of an ISO program for a GBO.
- Large variations in the standard of performance required, or selected to achieve certification (Gallagher et al, 2004; Petra & Taylor, 2006). Since consistency of EMS (or SMS) implementation is essential in a large organization such as a GBO, this is potentially very problematic.
- Limited ability to deliver improvements in the environmental impacts of an organization (Utting, 2005). For a GBO (or indeed any organization) any limitation in the return-on-investment of challenges the basic value of an ISO certification
- The fact that certification only tests the adoption of the requirements of the standard, and not the success or effectiveness of the implementation (Moxen & Strachan, 2000).

- Questionable additional value from an ISO14001 certification, beyond that of external credibility (Jiang & Bansal, 2003). Whilst external credibility may be important for a GBO, it alone is unlikely to be sufficient justification for an ISO program.

ISO 14001 has been applied (whether intended, or not) in a one-model-fits-all manner. It cannot, therefore, meet the requirements of all organizations equally well. The SMS requirements of GBOs, as a consequence of their business scope (and often, but not necessarily their size), organizational features, behaviours, etc., are likely to be far from the ISO best-fit-scenario. Therefore there is a need for an SMS model better fitted to GBO requirements. This (research) model will not abandon the fundamental features of the ISO model, but will, rather, be an enhancement (albeit probably substantial) of the ISO mode. The research process (below) is designed to demonstrate that this enhancement is appropriate for, and valuable to GBOs.

A New Management System Model

A Review of the Literature

If neither current EMS practice, nor current corporate responsibility standards and codes offer an adequate basis for a SMS in a GBO, what then are the foundations for a viable system? Discussion on the appropriate scope of organizational environmental management systems has been extended into the economic and social domains, accompanied by the widespread use of ‘triple-bottom-line’ (Elkington, 1997) terminology. However, when consideration is given to the range of demands placed on GBOs this three-pronged approach appears to be inadequate (Henriques, 2004) as it does not necessarily (if ever) accurately reflect or respond to the

requirements of an organization's stakeholders: why would stakeholder interests be limited to these three aspects?

Several writers have addressed this limitation, making proposals to extend the management system scope. Some of these proposals have addressed system functionality while others have considered system scope. Four examples that are directly relevant to the requirements of GBOs have been identified in the literature. Klaver & Jonker (2000) discuss the development of a corporate position with respect to sustainable development, which would then lead to a set of values that can be agreed with stakeholders (including employees) and, subsequently, implemented. Oskarsson & von Malmborg (2005) address the scope of the SMS and propose an expansion of the established three-component (environment, economic, social) model to encompass six aspects of business behaviour. Porter (Porter & Kramer, 2006) considers the functionality of the SMS from the perspective of business value and the value chain and proposes that value adding processes should have a sustainability component. Robert (2000) like Klaver & Jonker (2000) proposes that a set of principles should be developed, and that these should then be implemented using (a version of) the plan-do-check-act (PDCA) quality management model. Raiborn & Payne (1996) argue that there is a link between total quality management (TQM) practice and ethical behaviour. This is consistent with Robert (2000) and with Klaver (2000), since the PDCA model is a TQM tool, and the use of agreed values or principles could be considered to be ethical practice.

Furthermore, the literature suggests a number of important components, or features that should be present, and also suggests that the suitability of academic SMS models for practical implementation appears to be limited (Kolk & Mauser, 2002). An enhanced version of the PDCA

loop is not a sufficient basis, in itself, for a successful SMS in a GBO. If it were, an extension of either the ISO 9001 or ISO 14001 standards would suffice.

Rather, a model that identifies, assesses, and is aligned to the full range of significant stakeholder interests, not only environmental or customer quality ones, is required. Furthermore, in the GBO application the system must be able to evolve in response to, and in anticipation of changes in any, or all of the stakeholder and competitive domains within which it operates. The GBO model must also allow for flexibility in its application across the organization in response to, or anticipation of variations the local or regional stakeholder requirements. In addition, a successful SMS must continually verify that the internal, system standards that are used are suitable, and implement system changes when they are required. In system hierarchy terms this can be described as 'proactively sustainable' (Berry & Rondinelli, 1998). In system functionality terms it must exhibit a 'double loop' feature (Felix, 2003) using the first loop to assess systems suitability, and when changes are required they are initiated using the second loop.

Application of Existing Models to GBOs

Existing systems models and standards are not suitable or adequate for the SMS requirements of a GBO because:

- Existing management system protocols and standards are usually limited to only one aspect of the business process
- Existing sustainability codes and standards are not normally designed to guide management systems: rather, they are intended to guide policy development

- Sustainability standards have, almost without exception been limited to only three (environmental, economic, and social) aspects of the business process: this is not sufficient for the contemporary, let alone future requirements of GBOs

Since existing system tools and standards are not suitable for application in GBOs, an outline for a model SMS for application in a GBO is required which should:

- Embrace a wide range of business activities, going far beyond the ‘triple-bottom-line’ approach of the past ten years and engage stakeholders along the business value chain
- Be integrated with and part of the core of established management systems within the subject organization
- Be based on PDCA principles, and be both self-examining and self-improving via the use of a ‘double feedback loop’ process
- Allow for the incorporation of, or reference to applicable standards and codes that are external to the organization
- Be adaptable, to allow for implementation in a variety of industry sectors and business models (within the GBO context)
- Offers leadership in sustainability programs and practice for both internal and external stakeholders in the GBO

The Proposed System Model

In order to embrace the full range of organizational activities required of a SMS in a GBO the system template must extend beyond the established three-axis sustainability model

that incorporates economic, social and ecological (environmental) activities. Oskarsson & von Malmberg's (2005) model (Fig. 1) are a much more appropriate model than the 'Triple Bottom Line' model proposed by Elkington (1997) as they explicitly incorporate ethical, (product or service) quality, and perspective or brand perception, in addition to the environmental, social and economic aspects of the organization's activities.

(Figure 1)

However, further development of the Oskarsson model is required as the requirements of global businesses are complex, and specific, as discussed above. An initial proposal for the expansion of the six components of the Oskarsson model into the components required for application in a GBO is as follows:

- Ethics > governance, compliance, & organizational values
- Ecology > environmental & ecological risks & impacts
- Perspective > organizational reputation, achievement & sustainability
- Social > community, occupational health & safety
- Quality > customer, product and, or service quality & satisfaction
- Economy > business impact & shareholder value

Although the multi-stakeholder model described above has important advantages when compared with the established triple-bottom-line approach, it is not considered to be completely sufficient for the requirements of GBOs. In a GBO the scope and length of supply chains and

customer chains can be very large and complex, making management of sustainability exposures extremely challenging.

Porter & Kramer (2006) examine this value (i.e. supply to customer) chain concept and propose that it be used as a tool to strengthen the link between a company's resources and its ability to benefit society. Management of the sustainability aspects of the changing distribution of responsibility that accompanies the outsourcing of components of the business process presents special challenges. This is true not only with respect to manufacturing activities, but also some peripheral management activities. For example the increasing use of the 'Lean' and 'Six Sigma' manufacturing and process management techniques presents a significant opportunity for a reduction in environmental impacts, through improved efficiency (Lagenwalter, 2006). There are opportunities to incorporate more process, and risk management techniques into the SMS (Pojasek, 2007). These techniques are not part of the traditional environmental management system model, but the research work will explore opportunities to incorporate them into a GBO SMS.

It is therefore proposed that the concepts of supply chain and customer chain need to be replaced by the concept of a '*cylinder of influence*' (Figure 2, below). This cylinder of influence recognizes the chain of value creation (business process), with the organization placed in between the customer(s), and the supplier(s) of raw material, or underlying services. Around this chain are additional stakeholders who are (more, or less) influenced by, or who have influence on, the value creation process. These stakeholders are positioned at varying distances – representing different degrees of influence and relevance – from the organization and can be perceived in terms of (cylindrical) layers around the organizations value chain, hence the

extension of the two-dimensional chain model to a three-dimensional, multi-layered cylinder model.

Customers and suppliers can therefore be considered to be more, or less distant from the organization itself, along the cylindrical axis of this model. Indirectly involved (but, nonetheless, significant) external stakeholders are also included in this model and may be also be close to, or distant from the core business process at the axis of the model. Stakeholders that are perpendicular to the axis of the model will have varying degrees of influence on the organization, as a function of their distance from the axis: indeed, more distant stakeholders may exert influence via other, nearer stakeholders and there may be a flow of influence and action between the layered stakeholders.

(Figure 2)

The Cylinder of Influence model could be further expanded to embrace the concept of a completely sustainable organization (or society). In this extended model the cylinder becomes a continuous loop (i.e. a toroid, or donut). Furthermore, it can be calibrated or quantified in each axis for benchmarking and comparison purposes. The organization's product would, in the Toroid of Influence model, be reused or recycled at the end of its life, providing a source of material (or energy) for the organization's supply chain. The diameter or cross-sectional area of the toroid would vary according to the number, and significance of the internal and external stakeholders present at any point in the business process chain, or loop. Furthermore, it is expected that there would be interaction between the stakeholders positioned in the different

radial layers of the model, and the quality this interaction would be affected by their relative proximity to, and relationship with the organization at the axis of the model.

Conclusions

This paper argues that none of the existing range of public domain management systems standards or codes (Table 2) provides a practical template for an SMS suitable for use in GBOs. Although their implementation in a GBO is feasible, these models are limited to one, or to a small number of the range of attributes (environmental, health & safety, economic, social, etc.) that a true SMS must embrace: they lack the system scope that is required of a true SMS. The absence of a system model that is appropriate to the needs of a GBO provides a research opportunity.

The expansion of the traditional EMS to a triple-bottom-line SMS approach (Elkington, 1997), and then to a six component model (Oskarsson & von Malmborg, 2005) has been discussed. Epstein & Roy (2003) propose nine sustainable performance principles: these are not significantly different from (and pre-date) the Oskarrson proposal. A further clarification of the SMS scope was proposed, recognizing the importance of the impacts of all participants in the business process chain which was expressed through the proposed Cylinder of Influence model.

The incorporation of quality management (Lagenwalter, 2006), and risk and process management (Pojasek, 2007) tools into an SMS may result in a model that exhibits significant duplication when compared with an organization's business management system. Therefore the relationship between the sustainability management system (and therefore a definition of sustainability in a GBO) and the subject GBO's business management system must be established. Without a suitable set of boundaries, there is a risk of confusion, or lack of clarity.

The SMS model will be oriented towards the requirements of both internal and external stakeholders (Bremmers et al., 2006 and Cylinder of Influence model, Figure 2). With this emphasis on stakeholder interests, the relationship between the business management system and the SMS should be defined in terms of stakeholder relevance (Bremmers et al., 2006) and sustainability (Oskarsson & von Malmborg, 2005). Indeed the alternative terminology Stakeholder Interest Management System (SIMS) may eventually be a more appropriate description.

In addition to the overall framework for a management system, it is expected that development of the cylinder of influence model would provide a set of SMS tools, and associated guidance, for use in GBOs. Testing of the SMS model can be achieved through the application of benchmarking (one of the most powerful aspects of benchmarking is its ability to help an organization overcome '*paradigm blindness*' – the inability to see completely new ways of managing a process) and maturity-testing processes, using candidates selected from a peer group of organizations that meet the criteria previously established for GBOs.

References

- Abrahams, D., *Regulating Corporations, A Resource Guide*, UNRISD, 2004,
[www.unrisd.org/UNRISD/website/document.nsf/\(httpPublications\)/81A67BDFE6D6E4A9C1256EED005041F8?OpenDocument](http://www.unrisd.org/UNRISD/website/document.nsf/(httpPublications)/81A67BDFE6D6E4A9C1256EED005041F8?OpenDocument), Accessed 4 Nov 2007
- AccountAbility, AA1000 Stakeholder Engagement Standard,
www.accountability21.net/default.aspx?id=228, Accessed 4 Nov 2007
- Brammer, S.J., Parelín, S., *Corporate Reputation & Social Performance: The Importance of Fit*.
Journal of Management Studies V43-3, May 2006, p435-455
- Berry, M.A., Rondinelli, D.A., *Proactive Corporate Environmental Management: A New Industrial Revolution*, *Academy of Management Executive*, V12-2 38-50, 1998
- Bråthen, H., *Eva Joly: Unethical Companies Have No Future*, *DNV Forum*, 2006-3, p2-5
- Bremmers, H., Omta, O., Kemp, R., Haverkamp, D-J., *Do Stakeholder groups Influence Environmental Management System development in the Dutch Agri-Food Sector?* *Business Strategy & the Environment*, V16-3, 2006, p214-231
- BSI, *British Standard on Sustainability Management BS8900:2006*, www.bsi-global.com/en/Shop/Publication-Detail/?pid=000000000030118956, Accessed 4 Nov 2007
- BSI, *Occupational Health & Safety Management Standard OHSAS 18001:1999*, www.bsi-emea.com/OHS/index.xalter, Accessed 4 Nov 2007
- Callinan, M., *Change Management: Sustainable Development via an Augmented EMS*, *Strategic Sustainability: The State of the Art in Corporate Environmental Management Systems*, Chapter 13, p222-241, Greenleaf Publishing, 2007, ISBN 1-8747-1961-6
- CERES, *CERES Principles*, www.ceres.org/coalitionandcompanies/principles.php, Accessed 4 Nov 2007
- Davis, I., Stephen, E., *Ten Trends to Watch in 2006*, *McKinsey Quarterly* March 2006
- De la Torre, J. , Doz, Y. , Devinney, T. , *Managing the Global Corporation: Case Studies in Strategy & Management*, Second International Edition. Irwin McGraw-Hill, 2001, ISBN 0-07-118110-5
- Elkington, J., *Cannibals With Forks: The Triple Bottom Line of 21st Century Business*, Oxford, 1997 / 1999, ISBN 1-8411-2084-7
- Epstein, M.J., Roy, M-J., *Improving Sustainability Performance: Specifying, Implementing and Measuring Key Principles*, *Journal of General Management* V29-1 Autumn 2003

- Equator Principles, www.equator-principles.com/principles.shtml, Accessed 4 Nov 2007
- European Union, Eco-Management & Audit Scheme (EMAS)
ec.europa.eu/environment/emas/documents/legislative_en.htm, Accessed 4 Nov 2007
- Felix, R., A Proposed Taxonomy of Management Systems, *Systems Research & Behavioural Science*, V20, 21-29, 2003
- Fussler, C., Cramer, A., van der Vegt, S., Raising the Bar: Creating Value with the United Nations Global Compact, Greenleaf, 2004, ISBN 1-8747-1982-9
- Gadiesh, O. (Bain & Co.), European Business Forum, July 2004
- Gallagher, D.R., Andrews, R.N.L., Chandrachai, A., Rohitrana, K., Environmental Management Systems in the US & Thailand, GMI V46, 2004
- Gee, D., Business & the Environment: Current Trends & Developments in Corporate Reporting & Ranking, European Environment Agency Technical Report 54, Feb. 2001
- Global Reporting Initiative (GRI), G3 reporting guidelines,
www.globalreporting.org/Home/BottomBlock3/Block3.htm, Accessed 4 Nov 2007
- Henriques, A., Richardson J., (Editors), The Triple Bottom Line, Does It All Add Up?, Earthscan, 2004, ISBN 1-8440-7015-8
- International Chamber of Commerce, The Business Charter for Sustainable Development,
http://www.iccwbo.org/home/environment_and_energy/charter.asp, Accessed 4 Nov 2007
- International Finance Corporation (world Bank group), Policy & Performance Standards on Social & Environmental Sustainability,
www.ifc.org/ifcext/enviro.nsf/Content/PerformanceStandards, Accessed 4 Nov 2007
- International Organization for Standardization (ISO), International Standard ISO14001:2004 (second edition)
- Jiang, R.R., Bansal, P., Seeing The Need for ISO14001, *Journal of Management Studies*, V40-4, June 2003, p1047-1067
- Jørgensen, T H., Remmes, A., Dolores Mellado, M, Integrated Management Systems – Three Different Levels of Integration, *Journal of Cleaner Production*, V14, 713-733, 2006
- Klaver, J., Jonker, J., Changing Corporate Environment: Development of New management Systems, *Eco-Management & Auditing*, V7, 91-97, 2000
- Kolk, A., Van Tulder, R., Multinationality and Corporate Ethics: Codes of Conduct in the Sporting Goods Industry, *Journal of International Business Studies*, V32-2, p267-284, 2001

- Kolk, A., Mauser, A., The Evolution of Environmental Management: From Stage Models To Performance Evaluation, *Business Strategy and the Environment* V11, p14–31, 2002
- Langenwalter, G., “Life” is Our Ultimate Customer: From Lean to Sustainability, *Target* (Periodical of the Association for Manufacturing Excellence), p5-15, V22-1, 2006
- Lindell M., Karagozoglu, N., Corporate Environmental Behaviour – A Comparison Between Nordic & US Firms, *Business Strategy & The Environment*, V10 p38-51, 2001
- Leipziger, D., *The Corporate Responsibility Code Book*, Greenleaf, 2003, ISBN 1-8747-1978-0
- Madsen, H., Ulhøi, J.P., Integrating Environmental & Stakeholder Management, *Business Strategy & the Environment*, V10 p77-88, 2001
- Moxen, J., Strachan, P.A., ISO14001: A Case of Cultural Myopia, *Eco-Management & Auditing*, V7, p82-90, 2000
- Oktem, U., Lewis, P., Donovan, D., Hagen, J. R., Pace, T., EMS & Sustainable development, A Model & Comparative Studies Of Integration, GMI V46, 2004
- Organization for Economic Cooperation & Development (OECD), Guidelines for Multinational Enterprises, www.oecd.org/topic/0,3373,en_2649_34889_1_1_1_1_37439,00.html, Accessed 4 Nov 2007
- Organization for Economic Cooperation & Development (OECD), Principles of Corporate Governance, www.oecd.org/document/49/0,3343,en_2649_34813_31530865_1_1_1_1,00.html, Accessed 4 Nov 2007
- Oskarsson, K., von Malmborg, F., Integrated Management Systems as a Corporate Response to Sustainable Development, *Corporate Social Responsibility & Environmental Management*, 2005 V 12, pp121-128
- Palmisano, S.J., The Globally Integrated Enterprise, *Foreign Affairs*, V85-3, p127-136, 2006
- Peglau, R. & The Corporate Risk Management Company, www.ecology.or.jp/isoworld/, Accessed 4 Nov 2007
- Petra, C., Taylor, G., Firm self-regulation through international certifiable standards: determinants of symbolic versus substantive implementation, *Journal of International Business Studies*, V37- 6, p863-878, 2006
- Pojasek, R. B., Introducing ISO 14001 III, *Environmental Quality Management*, V17-1, 75 – 82, 2007

- Porter, M.E., Kramer, M.R., Strategy & Society. The Link Between Competitive Advantage & Corporate Social Responsibility, Harvard Business Review, December 2006, p78-92
- Raiborn, C., Payne, D., TQM: Just What the Ethicist Ordered, Journal of Business Ethics, V15, p963-972, 1996
- Redding, G., The Myth of the Global Company, World Business, April 2006
- Robert, K-H., Tools & Concepts for Sustainable Development, How Do They Contribute to a Framework for Sustainable Development & to Each Other? Journal of Cleaner Production, V8-2, p234-254, 2000
- Rugman, A.M. , Verbeke. A. , Regional and Global Strategies of Multinational Enterprises, Journal of International Business Studies 35:1, 2004: 3-18
- SIGMA project. www.projectsigma.co.uk/Guidelines/default.asp, Accessed 4 Nov 2007
- Social Accountability International, SA8000:2001 Standard, www.sa-intl.org
- Stanwick, P.A., Stanwick, S.D., The Relationship Between Corporate Social Performance & Organizational Size, Financial Performance & Environmental Performance: An Empirical Examination, Journal of Business Ethics, V17 p195-204, 1998
- Sullivan Principles, www.thesullivanfoundation.org/gsp/principles/gsp/default.asp, Accessed 4 Nov 2007
- Thunderbird Business School Global Mindset
http://www.thunderbird.edu/wwwfiles/pdf/corp_customers/corp_learning/GlobalMindset_v2.pdf
- United Nations, United Nations Global Compact, www.unglobalcompact.org, Accessed 4 Nov 2007
- United Nations, Annex I of the Report of the United Nations Conference on Environment & development, Rio de Janeiro, June 1992, www.un.org/documents/ga/conf151/aconf15126-1annex1.htm, Accessed 4 Nov 2007
- United States Environmental Protection Agency (EPA), National Environmental Performance Track (Performance Track), www.epa.gov/performance-track/, Accessed 4 Nov 2007
- Utting, P., Rethinking Business Regulation. From Self-Regulation to Social Control, UNRISD Technology, Business & Society Programme Paper 15, 2005
- Welch, E.W., Rama, A., Mori, Y., Greener Management International V44, p59-p73, 2003

Table 1, Research Definition of a Global Business Organization

Criteria	Limits	Comments
Revenue Distribution	No more than 50% in any area Over 20% in at least three areas	Areas are: North America Central & South America Europe (incl. Russia) Africa Mid-East & Asia (incl. Australasia)
Capitalization	No express lower limit No requirement to be traded	Provided that the revenue criteria is met
Culture	Evidence of global culture Evidence of employee diversity Evidence of management diversity	Subjective assessment based on available evidence
Business (Value) Chain	A global business chain	Evidence that the business (customer, and supplier) chains span at least three geographical areas (above)
The four criteria are inclusive: all must be met for the organization to be considered a GBO		

*Table 2, Contemporary Public Domain EMS and SD Related International Standards & Codes & their Limitations to SMS**Application in GBOs*

Code or Standard	Source	Activity Scope	System Scope	Limitations to SMS Application in GBOs
AA 1000	NGO	Social & Ethical	Audit Standard	Provides a process only for assurance of (organizational) performance disclosure, not assurance of the entire management system
BS 8900:2006	Standards NGO	Sustainable Development	Management System Guidance	Provides guidance on MS development (in any organization) but does not (& was not intended to) provide a useable management system model
CERES Principles	NGO	Environment	Policy Guidance	High level environmental (only) policy guidance, does not address other sustainability aspects & no system tools
Equator Principles	Industry + Intergovernmental	Social, Environment, Disclosure, Mgt System	Policy, Mgt System	Social, environmental disclosure & governance principles for finance (not organizational management)
EMAS	Intergovernmental	Environment	Management System Specification (Certifiable)	EU regulation (of limited geographical relevance) providing assurance of environmental (not sustainability) management
Global Reporting Initiative G3	NGO	Sustainable Development	Reporting & Disclosure	Limited to sustainability performance measurement & reporting; does not provide a management system model
UN Global Compact	Intergovernmental	Ethical & Behavioural	Policy Guidance	Policy guidance addressing some, but not all aspects of sustainability (& hence similar to but broader than CERES), no management system
ICC Business Charter for SD	Business NGO	Broad Business Aspects & Impacts	Management System & Policy Guidance	Only addresses organizational environmental management (despite title) via a combination of policy system content recommendations

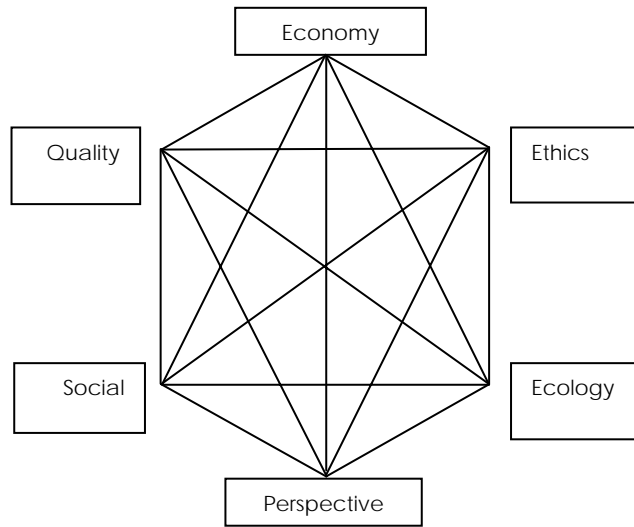
International Finance Corporation	Intergovernmental (World Bank)	Social, Cultural, Labour, Environment	Policy & Practice Guidance	Policy and practice guidance addressing some but not all aspects of sustainability, but including basic management system requirements
ISO 14001:2004	Standards NGO	Environment	Management System Requirements (Certifiable)	Management system assurance process & system model limited to environmental, not sustainability system
OECD Guidelines for Multinational Enterprises	Inter- governmental	Broad Business Aspects & Impacts	Management System & Policy Guidance	General management (not exclusively sustainability) best practice policy guidance (not management system) for MNEs
OECD Principles of Corporate Governance	Intergovernmental	Governance, Disclosure, Ethics	Policy Guidance	General governance (not exclusively sustainability) best practice policy guidance (not management system) for MNEs
OHSAS 18001:1999	Standards NGO	Health, Safety	Management System Specification (Certifiable)	Health & occupation safety (not sustainability) management system assurance process & model
UNEP Rio Declaration on Environment & Development	Intergovernmental	Global Environment	Government Guidance	Guidance on sustainability policy but directed at governments, not organizations
SA 8000:2001	NGO	Industrial Relations (IR)	Management System & Policy (Certifiable)	Policy & practice guidelines for labour relations aspects (only) of organizational behaviour
SIGMA Project	NGO + Government	Sustainable Development	Management System Guidance	Plan-Do-Check-Act (PDCA) model based sustainability management system model, does not fully address all GBO exposures (e.g. diversity, reputation)
Sullivan Principles	NGO	Social, IR, Competition, Safety	Policy Guidance	Policy guidance on limited range of aspects of organizational behaviour, no management system model

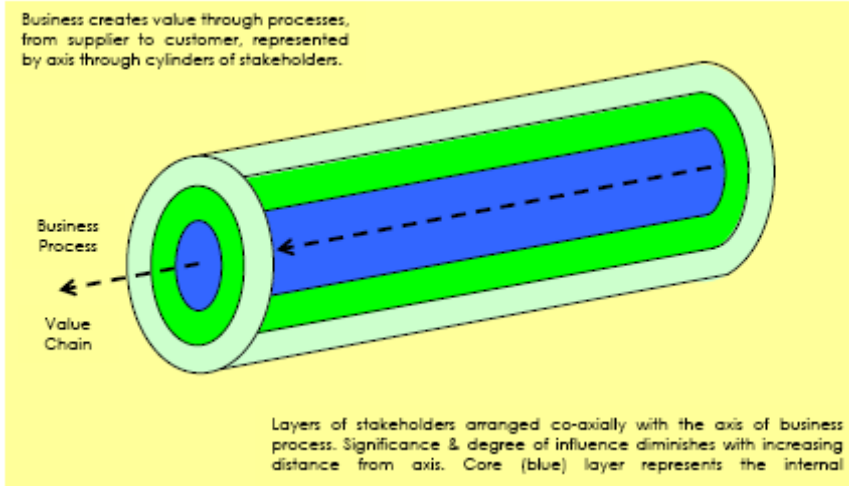
Figure Captions

Figure 1, A Long Term Management System Model - Adapted after Oskarsson

Figure 2, Multi-Layed Cylinder of Influence System Model (Sealy, Wehrmeyer, 2008)

1 Figure





1