OPERATIONALIZING SUSTAINABILITY: CLARITY & COMPLIANCE PROJECT

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Tomorrow’s company recognizes the critical importance of achieving environmental sustainability in the interests of all stakeholders and accepts the challenge this poses. Yesterday’s companies view environmental concerns as peripheral and react defensively when issues arise. ~ The 'Tomorrow’s Company' Inquiry report
Introduction

The purpose of this study is to identify how and why sustainability professionals, and the companies that they work within, have defined sustainability, and adopted new practices. Insight comes from identifying best practices and what it takes to integrate these practices internally and externally as part of supply chain management and reporting. Since the focus of this research is exploratory in nature, field research and qualitative data collection methods are used to develop an understanding of important sustainability practices.

The analysis of data collected from multiple companies (3M, Alcoa, Applied Products, Bayer Material Sciences, Baxter, EMC, FedEx, H.J. Heinz, Highmark, Honeywell, IBM, UPMC, Wesco, and Westinghouse) helps support the development of understanding and the generalizability of results. The researchers participating in this project relied primarily on the methods of qualitative data analysis, which consists of anticipatory conceptual model development and simultaneous data collection, reduction, display, and conclusions testing. After the above steps were taken, the researchers went back to the literature to confirm findings and build upon prior peer reviewed research. Multiple participant companies were used in order to provide a broader taxonomy of sustainability practices, opportunities and obstacles.

Methodology

The Sample

The sample selected for research in this study is both purposeful and based on theoretical underpinnings. We set out to find a sample of organizations recognized for embracing sustainability within business practices. Firms from different industries, and sizes were solicited based on inclusion within top ten sustainability rankings such as the Dow Jones Sustainability Index (DJSI), Kinder Lydenberg and Domini (KLD), Nasdaq, Newsweek, and S&P along with general research knowledge of appropriate field study candidates.

Of the 14 companies in this study, 9 are included in the DJSI, and an overlapping but different 9 are included in the Newsweek green rankings of 2011. Industries represented by the sample in this study include but are not limited to: aerospace and transportation manufacturing; diversified technology; electronics distribution; healthcare, information technology; medical equipment; mining, refining and manufacturing; nuclear services; semiconductor fabrication; shipping and logistics. The objective of this sampling approach is to construct a sample of firms that will be diverse enough to capture the variance of sustainability practices across firms and products that would be overlooked in a single industry sample.

Respondents

Interviews were performed with high ranking sustainability professionals at each of the firms in this study. The interviews were conducted with those individuals responsible for portions, if not all of the company’s overall sustainability strategy. Respondents ranged from 1 to 36 years of experience at their given firm with an average of 14 years’ experience, and a range of 5 to 36 years of experience in their industry with an average of 20 years of experience. Demographic information of respondents includes the number of full time equivalent employees (FTEs) which ranged from 6,800 to 426,750 with an average of 71,934. If the largest firm in the study was removed, the average FTE would be 44,640. Over half of the respondent firms are involved in GRI reporting, 79% of firms are involved in the Carbon Disclosure Project, 71% have ISO 14001 certification of facilities, and 86% have at least one LEED certified building.

Example titles of participants include:
Vice President of:
- Corporate Sustainability
- Environment, Health & Safety Operations
- Managing Director of Corporate Responsibility & Sustainability Worldwide
- Sustainability, Environment, Health & Safety

(Sr.) Director of:
- Corporate Sustainability
- Environmental Initiatives
- Environmental Services
- Sustainability

Other titles include:
- Global Product Stewardship & Occupational Health Risk Assessment Leader
- Principle Environmental Engineer-Corporate Sustainability
- Regional Manager of Corporate Citizenship & Corporate Affairs, and
- Sustainability Coordinator

Interview Questions

- How and why is sustainability defined within your company?
- How is compliance (achieving objectives) with sustainability measured?
How do managers of sustainability initiatives collaborate with those who manage supply chains?

What are the obstacles to working with supply chain professionals?

What differences in sustainability initiatives do you see when comparing U.S. operations to China or India, and the EU? Is there another country context that is influential?

Relate a story of how your firm changed its strategy, product line, or a process deployment using sustainability to guide that change process?

What IS/IT projects are underway to help sustainability initiatives.

Due to a portion of participant’s requesting that they not be directly quoted, quotes from participants will not be associated with any individual or company in the study.

Results

Operationalizing Sustainability

Content analysis of participant interviews provides 142 separately coded references and substantial insight regarding why and how companies engage in managing sustainability. The top INTERNAL DRIVERS of WHY sustainability is defined and managed reveal the following characteristics in frequency of importance from highest to lowest:

1. **Leadership.** This message comes through loud and clear as the most cited driver of successful and longstanding sustainability efforts.

2. **Historically embedded.** The historical roots of many of the companies make it easier to align sustainability with strategic, tactical, and operational initiatives.

3. **Social responsibility of the firm.** There is strong support for a Triple Bottom Line (TBL) approach to measuring and managing performance.

4. **Sustainability leveraged as a change agent.** Participants see this paradigm shift as an opportunity to change processes, performance measurement and practices.

While internal drivers are necessary, they are often insufficient to motivate change by themselves. Continuing our look at WHY sustainability is defined and managed, the top EXTERNAL DRIVERS pushing for this paradigm change include the following:

1. **Customer’s request for environmental and social information.** The growing number of requests from customers for additional data as part of supply chain audits and requests for proposals is one form of signaling the growing importance of this information throughout supply chains. The growth in the number of information requests and the lack of conformity of those requests leaves many looking for a standardized approach.

2. **Minimizing environmental impacts.** This focus goes beyond waste reduction and compliance with chaotic environmental regulations to measuring and managing life cycles of products and processes.

3. **Stakeholders.** Investors in general and Socially Responsible Investors (SRIs) specifically recognize companies who embrace sustainability and long-term success.

The combination of internal and external drivers helps to answer the question of WHY companies operationalize sustainability. The next pressing question is HOW do these same sustainability professionals translate this management paradigm into action? The most frequently coded information regarding HOW sustainability is operationalized includes the following actionable themes:

1. **A commonly cited definition.** The most utilized approach includes the United Nation’s Brundtland Report definition, “meeting the needs of the current generation without compromising the needs of future generations.” Almost half of participants express frustration with the ambiguity of sustainability.

2. **Use of teams and councils.** Often these teams have representation at the V.P. level; with upwards of four V.P. level appointments responsible for sustainability within one company. Also noted is the importance of regularly scheduled meetings of cross-functional teams to review performance and new initiatives.

3. **Importance of goals and metrics.** What started with manufacturing measured against environmental goals in the past now includes initiatives moving toward “ZERO”, (i.e., zero waste net zero energy), and goals that include social performance dimensions.

4. **Value creation.** With revenue growth, operating margin, asset efficiency and expectations all acting as drivers for shareholder value, it is important to have a vision which takes into account that running an enterprise has to be profitable.

The most frequently noted of the 15+ different metrics discussed include:

- Energy efficiency
- GHG emissions
- Water consumption
- Solid waste
- Product attributes
- Environmental exposure
- Philanthropy and volunteer hours
- Carbon indexed to products and revenue
5. **TBL measurement and reporting.** There is a commitment to growing both profitability and the business in an environmentally and socially responsible manner. Business rationale should have a TBL screen for decision making.

2. **Use of teams and councils.** One approach is to build an entire sustainability program within the supply chain functional group. Other approaches include forming working groups, a separate sustainability organization for North America, and senior executive councils to advise supply chain functions.

3. **Understanding and recognizing life cycle attributes of a product and supply chain impacts.** Other approaches to SCM opportunities include utilization of greater product and process information now provided by Life Cycle Assessment (LCA) tools. Where possible, a cradle to grave approach is replaced with a cradle to cradle approach.

### Obstacles to collaboration & integration

Cross functional collaboration has both opportunities and obstacles. A review of interviews reveals 52 coded comments regarding obstacles that inhibit the integration of sustainability with supply chain management.

Obstacles to the collaboration and integration of sustainability within these two functions come from the following categories in order of frequency:

1. **Understanding integration opportunities.** A lack of communication regarding the value proposition for sustainability slows integration efforts.

2. **Conflicting metric requests from customers.** We found inconsistent requests among companies asking for sustainability information. There are differences in the timing of requests, and importance of some metrics among the organizations soliciting the information.

3. **Too much focus on costs.** An important metric conflict arises when supply chain management performance is based on money saved and sustainability is based on the best materials and where the materials come from.

4. **Organizational issues.** Staff instability can slow integration efforts.

### Change management & global context

The final questions posed to participants were aimed at exploring how companies successfully used sustainability to change strategy, launch a new product or deploy a new process as well as how sustainability initiatives have benefited from information systems integration, and perceptions of sustainability in operations abroad with a focus on China, the European Union (EU) and India. Responses resulted in coding 109 references and led the following insights:

- **Leverage sustainability to create change.**
There are multiple stories of how sustainability is used as a successful catalyst for change focused on energy management programs.

- Product innovation is the second most referenced use of change.
- Design of new products leveraging the use of LCA received the third highest references.

- **Enable information system integration.**
  - The systems which have received the most attention by the participants in this study to date include: energy management, GHG management and, environmental management.
  - There is a growing need for real-time availability of data for reporting.
  - A global, integrated information repository is required to link knowledge management to actions.

With a focus on operations and involvement with China, the European Union (EU), and India, participants were asked to compare the United States (U.S.) to these other locations and comment on the differences in their operations. Interviews resulted in 54 coded responses with the following perceptions listed in order of frequency:

- Respondents are more familiar with and pay more attention to operations in China than other developing countries. There is recognition of China’s strong awareness of sustainability and growth potential, yet participant’s identified a need for more transparency.
- **Europeans** have a better understanding of sustainability than their American counterparts. Europeans for some time have been perceived as leading the U.S. in sustainability initiatives. EU based operations have more focus on climate change as a driver of sustainability.
- **India** is looked at as a destination for future opportunities. Perceptions of these locations include considerable resource constraints, and a need for more regulation.
- Facilities and operations within the U.S. are considered innovative, but in need of collaborative corporate and government leadership. The current focus is on efficiency, not a more comprehensive approach to sustainability. For some, sustainability initiatives are driven from the U.S. and they are waiting to apply the same practices in China. There is a need for legislation, specifically a GHG bill, to bring about clarity and a level playing field for measurement and management by companies. These insights support similar findings in 2011 that businesses want a successor to the Kyoto Protocol.

### Conclusions

- Sustainability professionals are change agents with the ability to shape strategy, new products, and supply chain integration more now than at any previous time in corporate history.
- Successful integration of sustainability can be attributed to internal leadership and an embedded history of waste elimination and environmental performance.
- Customer requests for information, stakeholder engagement and the importance of third party rankings are strong external drivers for companies to integrate sustainability into strategy and operations.
- Tomorrow’s sustainability professionals focus their attention on performance and KPIs, goals, and integration. Yesterday’s professionals look for compliance.
- Defining sustainability is an iterative process providing opportunities for training and communication of intentions. Start with a common definition of sustainability, and then customize this definition to include both environmental and social performance while also being relevant to the company mission and strategy.
- To better integrate sustainability, leverage teams and councils across countries and business functions at the highest levels of the firm.
- Triple Bottom Line performance should be a component of decision making, yet management should not lose track of core business priorities in the quest to implement sustainability programs.
- Supply chains provide the next wave of opportunity for the full integration of sustainability and opportunities for collaboration.
- Integration and collaboration will be possible with the enabling capabilities of information systems that go beyond environmental health and safety to: sustainability, energy, greenhouse gas, and enterprise management systems supporting knowledge management and real-time visibility of data.

We hope future sustainability professionals will use this report and the information highlighted here to make their own case for change.
End Notes

3 (Eisenhardt 1989, Miles and Huberman 1994).
5 Our findings support survey research showing senior leadership is seen as most strongly influencing an organization’s attention on sustainability, by the Haanaes et. al., Boston Consulting Group, Sustainability: The Embracers Seize Advantage, MIT Sloan Management Review, winter, 2011.
6 Haanaes, et al., Boston Consulting Group, (2011) find that second to senior leadership, customers are the second most important stakeholder influencing an organization’s attention on sustainability.
7 The Economist, “Tangled up in green tape” February 18th, 2012.
8 According to 30 years of research, 63% of studies show a positive relationship between sustainability investments and financial performance, Network for Business Sustainability, Metrics for Valuing Business Sustainability, revised, (2011).
9 A code of conduct sets expectations of required conduct throughout a supply chain and is part of best practice frameworks, Network for Business Sustainability, Managing Sustainable Global Supply Chains, (2011).

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