Organizational Behavior & Supply Chain Carbon Outcomes

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Introduction

Supply Chain
Managing inter-organizational systems

Outcomes
Real, observed impacts

Organizational Behavior
There are barriers and opportunities that stem from the way managers access information and relate to each other
Companies with dynamic, complex supply networks will know in real time the inputs and impacts associated with the entire value chain used to create any product.

Armed with that information, they will be empowered to:

- Demonstrate leadership at the product and enterprise level
- Insulate supply chains against price volatility and other risks, while reducing energy-related cost structures
- Know the outcomes of new actions and meaningfully communicate progress to consumers and other stakeholders
1. Compliance orientation

2. Non-transparency

3. Incomparable Standards
Carbon Disclosure Project (CDP)

- Investor coalition representing 385 institutional investors with $57 trillion in assets under management
- Most recent survey includes climate change-related data from 1550 companies worldwide
- New initiative, “Supply Chain Leadership Collaboration,” working with companies to request for disclosure suppliers
- *In recent disclosure request to the 100 largest companies in China, only 5 responded fully; 20 provided some information, while 75 either declined to participate or did not respond.*
Compliance Orientation

Insights

Sustainable Supply Chain Practices

Alignment: Aligning commercial and social objectives
Ownership: Collaborating on creating group objectives and methods

Empowerment: Ensuring recourse and action channels
Engagement: Building and strengthening policies
Non-Transparency Experiences
## Non-Transparency

### Insights

#### Two Current Approaches to “Supply Chain Footprinting:”

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<tr>
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<th><strong>Modeling</strong></th>
<th><strong>Observing</strong></th>
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<tbody>
<tr>
<td><strong>Tool</strong></td>
<td>LCA</td>
<td>Supplier Engagement</td>
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<tr>
<td><strong>Task</strong></td>
<td>Generic process data given known average</td>
<td>Real data from suppliers’ facilities</td>
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<tr>
<td><strong>Strengths</strong></td>
<td>Pinpointing expected hotspots among chain of companies</td>
<td>Illuminating company factory floor realities</td>
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<td><strong>Weaknesses</strong></td>
<td>Only tracks process design so not measure implementation differences among companies with similar processes</td>
<td>Slow—tracks one company at a time</td>
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Incomparable Standards

Experiences

Timberland

GREEN INDEX® 4.5

FACTORs

CLIMATE IMPACT: 0 4 10
Greenhouse gas emissions through production.

CHEMICALS USED: 0 10
Presence of hazardous substances (PVC, Chrome leather* and Silicone Adhesives).

RESOURCE CONSUMPTION: 0 9 10
Reduced by the use of recycled, organic and renewable materials.

*Chrome leather present in leather-based shoes

For more information about the Green Index® rating, see inside the shoe box or visit www.timberland.com/sustainability.

PAS 2050:2008
Specification for the assessment of the life cycle greenhouse gas emissions of goods and services.

The Greenhouse Gas Protocol
A lack of comparable standards is standard:

- Conversion factors
  - The “gears”
- Ownership / allocation
  - Carbon footprints are necessarily shared
- Footprinting methodologies
  - Comparability, verifiability
  - Note you rarely hear about confidence estimates
- Performance
  - What “reduced” carbon means to the layperson
- Frame
  - How information is even useful or actionable stakeholders
- Management processes
  - Efficient systems that leverage shared supply bases
Opportunities

Compliance orientation
  ➡️ Leading systemic change

Non-transparency
  ➡️ Open-sourcing by example

Incomparable standards
  ➡️ Support efforts collaboratively
Discussion
Appendix
Promising Approaches

1. Aligning organizational messages to suppliers
2. Educating suppliers on the business value and technical aspects of carbon reporting
3. Standardizing supplier questionnaires, both in terms of content and process, among peers
4. Building business-to-business tools focused on primary, organizational-based supplier data
5. Developing procedures that invite novice and experienced users at the same time
6. Centralizing aggregate data from a large base of companies with systems that allocate results to one or more tiers of suppliers
7. Continuing to promote standardized methodologies and conversions