

Resilience: Sustaining the supply chain

July 2012

At a glance

A resilient supply chain requires combining both 'play not to lose' and 'play to win' strategies.

As supply chains become more complex and extended, managing the sustainability risks of disruption and interruption have become ever more critical and difficult. How can your business overcome the vulnerabilities in its supply chain and turn strategic sourcing safeguards into competitive advantage?

Both the mounting costs and heightened vulnerability have brought supply chain disruption to the top of the risk register in recent years. In 2008, a PwC study of 600 companies that had experienced supply chain disruptions showed that, relative to peers, their average share price declined by nearly 20%, share price volatility was higher, and return on sales and return on assets were lower.¹

As companies become more global in scale and dependent on emerging markets, these risks can only escalate. Social and environmental issues are creating further vulnerability. One recent example of a supply chain disruption attributed to climate change was the unusually prolonged drought in Russia over the summer of 2010. By early August, over one-fifth of Russia's wheat crop had been destroyed and the government banned all grain exports, contributing to wheat price futures reaching their highest point in nearly two years. General Mills was one of many food manufacturers that faced significant price pressure as a result, announcing increases between 4% and 5% in September 2010.²

As businesses come under increasing customer, investor, media and other stakeholder pressure, leading companies are developing more proactive strategies to manage sustainability risks and strengthen

resilience in their supply chains. This article examines today's leading practices and opportunities for further innovation and development.

Assessing the risks

Sustainability risks take a variety of forms. The primary focus of this article is:

- Climate change and related extreme weather events, such as floods, droughts and forest fires
- Environmental damage, such as critical habitat destruction, threats to iconic species, chemical spills and other pollution
- Social, safety and labour practice issues, including unsafe working conditions, human trafficking, use of child labour and damage to health

The potential impact includes breakdowns in the supply of key parts or commodities, which can disrupt production and core business operations. It also includes swings in the price of raw materials, which can erode margins and revenues. In turn, incidents within the supply chain can tarnish the brand, spurring customers to switch their business and leading to resulting falls in revenues and share values. If such supply chain disruption and reputational damage are not addressed quickly, the short-

term financial losses may become more serious strategic issues as competitors move in to seize lost market share.

Figure 1 highlights some examples of social and environmental supply chain disruption that have affected companies since 2010. In the autumn of 2011, for example, unusually intense monsoon conditions in Thailand flooded more than 1,000 factories in the central region of the country, severely disrupting the global supply of hard drives due to the concentration of assembly plants in the affected region.³ The knock-on impact led to fourth-quarter revenue downgrades by a number of leading global computer manufacturers. This included Acer, the world's fourth-largest PC maker, who cut its fourth-quarter sales projection by 5% to 10%.⁴

Pressure from consumer groups has also forced companies to tackle social and environmental issues in their supply chains. For example, cocoa sourcing in West Africa has been contentious for its association with child labor. Some companies have responded to this by working with industry groups and NGOs to source certified cocoa.

¹ From vulnerable to valuable: how integrity can transform a supply chain, published by PwC in 2008

² Reuters 22.09.10

³ New York Times, 07.11.11

⁴ Financial Times, 28.10.11

Figure 1 Examples of sustainability-related incidents and their impact, 2010-2012



Source: PwC analysis

In a further example, Apple has faced growing scrutiny over working conditions among its suppliers after two workers were killed and over a dozen injured by an explosion at an iPad manufacturing facility in May 2011.⁵ In response in February 2012, Apple hired the Fair Labor Association to conduct audits of its final assembly suppliers.⁶

Some of the incidents outlined in Figure 1 are too recent to fully gauge the commercial impacts. But a 2010 study documented case studies of sustainability-related supply chain incidents affecting six companies between 1999 and 2008. These resulted in direct costs per incident of

between \$11 million and \$250 million, and/or indirect costs associated with declines in stock value of 5% to 18%.⁷

Meeting stakeholder expectations

To safeguard supply chains, stakeholders have pushed for a variety of voluntary and regulatory sustainability standards. These primarily focus on raw material production and sourcing, manufacturing practices and public disclosure of supply chain impacts.

The result has been a proliferation of industry-specific and cross-industry supply chain initiatives that promote voluntary social and environmental

standards. Initiatives such as the Electronic Industry Citizenship Coalition (EICC) and the Supplier Ethical Data Exchange (SEDEX) have gained wide participation among companies seeking to demonstrate their commitment to responsible supply chains. In agricultural commodities, consumer groups have brought together relevant stakeholders in the industrial products, food manufacturers, agribusiness and consumer goods industries to develop voluntary sustainability standards for commodity production, including beef, cotton, soy, cocoa, palm oil, coffee, tea and paper.

5 Reuters, 22.05.11

6 Apple Inc media release, 13.02.12

7 Value of Sustainable Procurement Practices, PwC, EcoVadis and INSEAD, 2010.

Play not to lose

Companies are implementing a variety of strategies to manage emerging supply chain risks and stakeholder expectations, utilising operational and strategic levers. These strategies often begin with basic risk management measures such as implementing supplier codes of conduct that establish minimum standards of environmental and social performance. These ‘play not to lose’ approaches seek to protect and maintain existing operational and reputational integrity.

As companies seek more active management of sustainable practices in their supply chains, they often begin to integrate social and environmental criteria into their procurement decision making, selecting suppliers that can demonstrate better performance or products that have been certified as sustainably produced. Some companies have engaged their suppliers to collaboratively tackle particularly challenging sustainability issues.

Play to win

As companies move further along this spectrum (see Figure 2), their supply chain efforts become increasingly ‘play to win’ strategies, which seek to mark them out from their competitors, enhance the brand and build new platforms for growth. Leading practices combine ‘play not to lose’ and ‘play to win’ strategies to manage operational and reputational integrity in an integrated way. This is underpinned by clear goals on tangible (cost reduction, revenue from new sustainable products or services) and intangible (enhanced brand) benefits.

Sustainable growth

Optimising supply chain sustainability and managing the associated risks are still emerging elements of corporate strategy. One lesson is clear— a range of approaches is likely to be necessary to effectively reduce your supply chain risk exposures.

However challenging, improving supply chain performance may be the single greatest contribution you can make to reducing sustainability risks, which opens the way to secure growth while improving social and environmental conditions across the globe.

Figure 2 Assessing the techniques for managing supply chain risk

Play not to lose

Supplier codes of conduct

Supplier codes of conduct are now common across a number of industries, setting out minimum performance standards for suppliers on issues like business ethics, environmental compliance, human rights, labour policies, workplace conditions and worker safety.

Supplier codes of conduct are typically built into business contracts, and companies regularly verify supplier codes with announced and unannounced audits of supplier facilities.

We see the code of conduct approach working best when suppliers have a higher degree of sophistication and competence on environmental and social issues, and where suppliers have limited ability to 'opt out' and take their business to other less-demanding customers.

In other types of supply chains, particularly in the agricultural sector, codes of conduct have been less successful. As the key environmental and social issues often occur far upstream in the supply chain, there tends to be a high variability in supplier sophistication and capability, and suppliers have more room to opt out.

Sustainability criteria in procurement

While the supplier code of conduct may be viewed as the 'stick', you can also integrate sustainability criteria into your procurement decision making, providing a 'carrot' to reward suppliers for forward thinking on sustainability.

Traditional procurement decisions have concentrated on cost, quality and performance criteria. Increasingly, companies are seeking to incorporate sustainability into their purchasing decisions. While these criteria tend to be secondary to cost, quality and performance, they can often serve as 'tie-breakers' when two prospective suppliers are coming up equal in other areas. Some companies, like P&G and Walmart, ask their suppliers to complete detailed scorecards to rate their own performance across a variety of environmental categories (e.g., waste, water, energy and packaging).⁸ The aim is to reward the high-performing suppliers with greater volumes of business over time. The net effect of this trend is that it puts sustainability on the radar for companies that may have otherwise ignored it, while driving eco-efficiency and product innovation among leading companies.

Source certified or alternative raw materials

Many companies are choosing to source third-party certified raw materials to alleviate the reputational risks associated with environmental and social issues. For example, many food manufacturers and retailers have committed to sourcing 100% Roundtable for Responsible Palm Oil (RSPO) by 2015 to avoid the brand risks associated with deforestation and habitat destruction, which have been a pervasive problem in Indonesia, a primary source of palm oil.

In some cases, companies look for opportunities to reformulate products and use alternative raw materials to avoid the sustainability risks altogether. Examples of this strategy include PepsiCo⁹ and Unilever¹⁰, who are both exploring alternatives to palm oil—PepsiCo is exploring a sunflower substitute, while Unilever is testing an algal-based oil.

Dedicated or integrated supply chain

For some companies, the supply chain risks are so great that they look for opportunities to take control of components of the supply chain through acquisition or a long-term, dedicated supplier agreement. This allows for a much higher degree of control over all aspects of sourcing, including sustainability. One example of a sustainability leader taking this approach is Unilever¹¹, who recently announced plans to build a palm oil processing plant as part of its strategy to accelerate its sourcing of certified palm oil. The downsides of dedicated or integrated supply chains are the inherent operational risks and the capital requirements to acquire or set up the operations.

Supplier and stakeholder collaboration

Where the environmental or social risks are pervasive rather than isolated, you may need to take a collaborative approach with the supplier community and relevant stakeholders, including consumer groups, competitors, government agencies and universities, to collaboratively develop supply chain solutions.

Most of the certified commodity standards are examples of this type of multi-stakeholder approach. Walmart's greenhouse gas innovation project is another example of supplier collaboration, where Walmart has challenged its suppliers to propose ideas to reduce the carbon emissions of its products to help Walmart achieve its goal of eliminating 20 million tons of emissions from its global supply chain by 2015¹². These carbon-reduction initiatives should benefit Walmart and its suppliers by reducing energy and other resource costs associated with the production of the goods.

Play to win

8 P&G 2010 Sustainability Report; Walmart 2011 Global Responsibility Report

9 The New York Times, 21.02.11

10 The Wall Street Journal, 07.09.10

11 The Wall Street Journal, 24.04.12

12 Walmart 2011 Global Responsibility Report

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