Sustainability is *FREE*—

The Case for Doing the Right Thing

By Dale S. Rogers

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More and more companies now recognize that creating a sustainable supply chain is more that just the right thing to do—it's a requisite to business success. Sustainability today resembles the quality movement of three decades ago. As with quality, there was initial resistance to "going green." But it soon became apparent that the benefits were far too great to ignore. And done right, sustainability can be free.

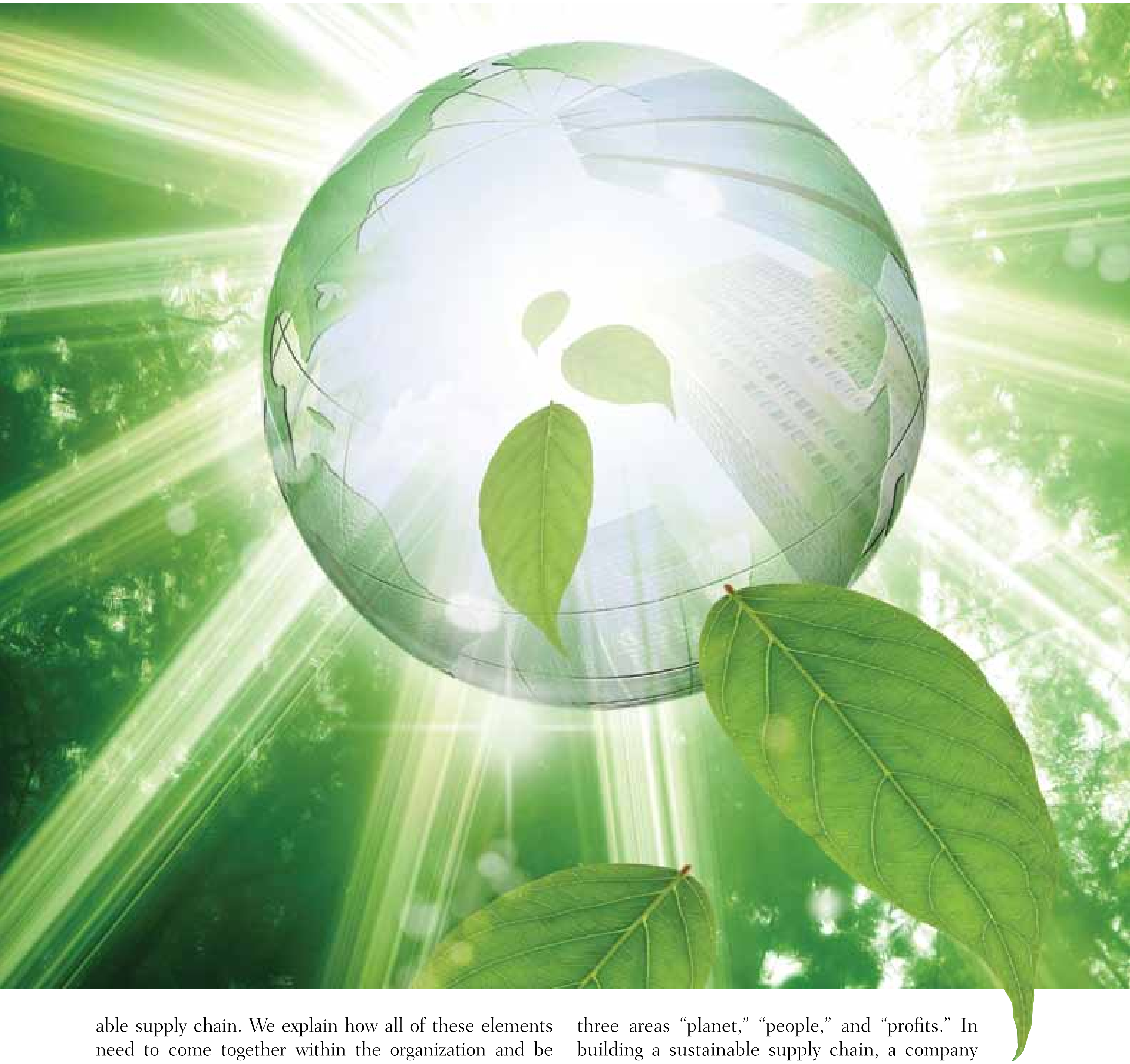
In 1979 Philip B. Crosby published the book *Quality Is Free*.[1] For many of us, this little book turned on a light. It contained the revolutionary idea that quality did not add cost to a product. Instead, building quality into a product or process was, at the very least, a breakeven proposition. Crosby wrote that making quality a sure thing was really an exercise of "getting people to do better all the worthwhile things they should be doing anyway." This applies to sustainability just as well. And, as Crosby said about quality all those years ago, building sustainability into products and processes is "free."

At the time that Crosby wrote *Quality is Free,* the careers of company managers usually moved through a specific function such as manufacturing or sales. In general, these individuals were not likely to have much experience with quality issues. Yet while ignorance of quality management may have been the norm in 1979, that's not the case today. Quality is woven into the fabric of most organizations. Nearly every successful firm around the globe is working to build quality into all of its products and processes.

While quality now is widely understood to be a critical competitive variable and the "ante" to play the game, sustainability does not yet enjoy that same status. But we believe that over the next several years sustainability, like quality, will become an integral part of the organization. Further, sustainability will be a critical part of every firm and every supply chain.

Creating a sustainable supply chain is a lot more difficult than just being a sustainable company. A sustainable supply chain requires several companies working in concert to deliver products and services to the ultimate consumer in a socially responsible, environmentally sound, and financially favorable manner. Sustainable initiatives need to benefit the companies that populate the supply chain as well as the key stakeholders. And in a truly sustainable supply chain, the consumer realizes that companies are working together to bring value.

This article describes the key elements that comprise a sustain-



able supply chain. We explain how all of these elements need to come together within the organization and be fully embraced and incorporated throughout the broader supply chain. It is at this point that sustainability truly becomes free.

Four Elements of Sustainability

The key elements in the sustainable supply chain are shown in Exhibit 1. Included in this model is the "triple bottom line"—a theoretical device that depicts three areas that need to be measured both internally and across the supply chain. The triple bottom line consists of the natural environment, society, and economic performance. Nike uses the triple bottom line but calls the three areas "planet," "people," and "profits." In building a sustainable supply chain, a company needs to consider its performance in all three areas, not just one.

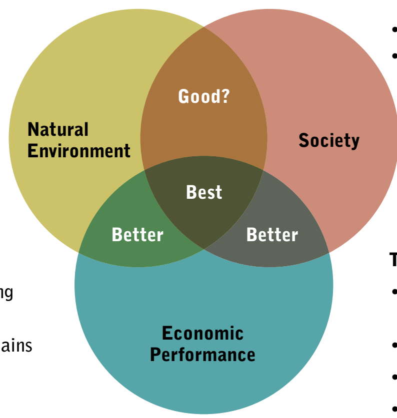
Economic performance clearly is the main focus of most companies. Milton Friedman said that the primary social responsibility of business is to increase its profits. Clearly, a company cannot stay in business very long without profitability. However, short-term profitability should not be the only yardstick applied to a firm or its supply chain partners. They also must be measured on how well they "do the right thing" over the long term. A company needs to operate with respect to the environment and natural resources. Thinking environmentally

EXHIBIT 1

The Sustainable Supply Chain

Strategy
- Sustainability as Part of an Integrated Strategy
- Long Term View
- Productivity (Doing more with less)

Organizational Culture
- Deeply Ingrained
- Organizational Citizenship
- Values and Ethics
- Quality Culture



Risk Management
- Contingency Planning
- Supply Disruptions
- Outbound Supply Chains
- Headline Risk
- Agility

Transparency
- Stakeholder Management
- Supplier Operations
- RFP/RFQ Process
- Financial Reporting
- Leadtimes to Customers

Adapted from Craig R. Carter and Dale S. Rogers, "A Framework of Sustainable Supply Chain Management: A New Theory," International Journal of Physical Distribution and Logistics Management, 38.5 (2008)

and using fewer resources can also lower costs in both the short run and long run.

The same holds true for social responsibility. To be truly sustainable, a firm needs to consider issues such as its role in the community and how it treats and develops employees for future success. However, these efforts should not happen without regard for the impact on profitability. A firm's intentional focus to encompass social and environmental responsibility will ultimately serve to build and solidify its profitability. Doing the right thing for employees, customers, and the community in which the firm operates makes it more likely that companies will maintain profitability. Ford Motor Company calls this relationship with employees, customers, and the community its "license to operate." Most firms have understood the importance of good customer service for several decades. What has been less clear to many is the importance of content, motivated employees. and a supportive community. To have a license to operate, companies need to operate responsibly with workers and with the community.

The sweet spot from which to operate is in the nexus of Exhibit 1—the intersection of environmental or green performance, society or social responsibility, and great economic performance. It is at this nexus that the firm and its supply chain are best positioned to thrive in the long term. Four "enablers" can help move companies toward this nexus and toward the goal of a sustainable supply chain. These enablers relate to strategy, organizational culture, transparency, and risk management. Collectively they will move an organization toward a place where sustainability—like quality before it—is free.

STRATEGY: A Top-down Approach

Sustainability must be part of an integrated strategy. In fact, sustainability should be at the top level of strategy development. From that point, it can be infused throughout the corporation's supply chain. In the United States, Walmart had adopted such an integrated strategy. The large retailer is attempting to integrate environmental and social responsibility. Specifically, it intends to infuse a regard for the environment and social responsibility into every part of the operations of both Walmart and its suppliers. The plan is to achieve "zero waste" from all operations before 2025. While it remains to be seen if Walmart can achieve this lofty goal, it is a central part of their corporate strategy.

The group chief executive of one of Walmart's suppliers, Patrick Cescau of Unilever, said: "We have come to a point now where this agenda of sustainability and social responsibility is not only central to business strategy but will increasingly become a critical driver of business growth... how well and how quickly businesses respond to this agenda will determine which companies succeed and which will fail in the next few decades."[2] The late Dr. Donald J. Bowersox coined the term "operational continuity" as a way to describe the concept of strategic sustainability. The goal of any company is to attain longevity. Through operational continuity, the firm retains the license to operate and thus can achieve the desired longevity.

In the *New Age of Carbon,*[3] Dr. Stephen Stokes and Kevin O'Marah of AMR Research (now part of Gartner) suggest that firms need to build a portfolio approach to strategy development. Stokes advocates addressing the firm's "Organizational Metabolism" as part of its strategy. They write, "There is no silver bullet for emission reduction or energy efficiency. Leading companies like Coca-Cola, Procter & Gamble, Dell, and Dow Chemical are adopting approaches that integrate a range of actions." The reason a portfolio approach makes sense is that no single measurement should be considered solely by itself. Instead, the firm needs to take an integrated approach to the total costs and benefits of environmental and socially responsible actions. This idea is similar to the "Total Cost

Concept" that was developed in logistics over 40 years ago.

A firm may be tempted to ask itself, How do we choose between sustainability and profitability? That is the wrong question. The two are not separate and distinct; today, companies have no choice but to embrace both. A better strategic question to ask is, How do we build in affordable sustainability that will best enhance the lasting profitability of this firm and its critical supply chains?

A sustainable supply chain strategy entails more than just taking a long-term view of the firm and its supply chain; it should also focus on increasing productivity within the supply chain. This productivity should not come at the expense of the environment or of key stakeholders such as employees and suppliers. Productivity is doing more with less. It can be accomplished by reducing costs or resources needed to operate.

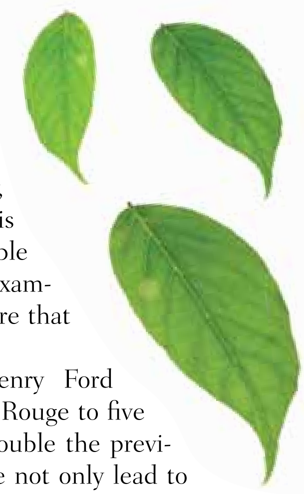
ORGANIZATIONAL CULTURE: The Power of Example

Mitch Jackson, Vice President, Environmental Affairs & Sustainability at FedEx, characterizes sustainability as a "team sport." Put another way, sustainability needs to be built into the organization's culture. FedEx looks for sustainability solutions both across departments within the company and with its customers. Sustainably thrives when everyone understands its importance and works in concert to achieve it. Jackson believes the solutions that result from the FedEx approach have been both powerful and effective.

As the FedEx experience suggests, the culture of sustainability within the organization and across the supply chain should be deeply ingrained. One historic example of sustainable SCM embedded into a culture was brilliantly on display nine decades ago at the Ford Motor Company. When Henry Ford first developed his amazing manufacturing facilities in River Rouge, Michigan, he built in many sustainable mechanisms. In 1919, he not only constructed a state-of-the-art assembly line for Model Ts, but also designed an industrial park for Ford suppliers with a "zero waste" philosophy in mind.

In addition to the assembly plant, Ford built a steel plant where raw iron ore would come in and quickly be turned into steel, which then would be moved next door for assembly into an automobile. He brought his friend Harvey Firestone into the park to fabricate tires out of Brazilian rubber. The boxes Ford specified for receipt of parts were designed so that the wood used in making the boxes could be reused for the floorboards in the car. And then, Mr. Ford used the leftover wood to start up a new business called Kingsford Charcoal. As much as possible, he worked to reduce waste.

Three days after receiving iron ore, rubber and assorted parts, a Model T would be produced. While that achievement would be difficult to replicate today, the River Rouge Ford plant is still operating in a sustainable fashion. It remains a good example of an organizational culture that embraces sustainability.



On the social side, Henry Ford increased wages at the River Rouge to five dollars per day, which was double the previous wage. This wage increase not only lead to improved standard of living for the employees, but also created many new customers for Ford products.

Turning to a more contemporary example, Kenco Logistics, a medium-sized 3PL based in Chattanooga, Tenn., emphasizes sustainable practices as an intrinsic part of its overall performance. Sustainability at Kenco means greater safety through building safety and quality standards into company systems and through employee training. Building safety and security into all of its processes means that Kenco can offer its services at a reduced cost to their customers. Fewer on-the-job injuries, a healthy work environment, lower workmen's compensation costs all translate to higher profitability. As Kenco Chief Operating Officer Andy Smith has said, building in safety and security to all of the company's logistics processes makes financial sense as well as being socially responsible.

One final point about this critical cultural enabler: Sustainability in one organization can resonate through the supply chain. Firestone is just one example of a company that adopted the culture built by Henry Ford. Today, if a firm emphasizes careful use of resources and embraces its stakeholders in that effort, the impact on suppliers can be profound. As one Fortune 500 purchasing manager said, "I can do more to improve sustainability with one purchase order than 1,000 protestors can do with all their efforts."

TRANSPARENCY: Being Visible and Accessible

The third enabler of a sustainable supply chain is transparency. Consumers worldwide are demanding that the companies they purchase from embrace sustainability. At the same time, purchasing managers are building sustainability requirements into their Requests for Proposal. As the pressure from consumers, governmental bodies, and other stakeholders intensifies, companies have had to open up their operations to greater public scrutiny. Increasingly, stakeholders demand that corporate practices up and down the supply chain be readily visible and accessible. Greater transparency allows stakeholders to see further along an organization's supply chain. Moreover, the transparent movement of information up and down the supply chain facilitates coordination and management of manufacturing and logistical activities. So in the long run, it is simpler and less costly for a company to operate with transparency into economic, social, and environmental issues.

Transparency can help managers up and down the supply chain avoid wrongdoing that can sometimes thrive in dark corners. If supplier actions are visible to their customers it is more likely the suppliers will act appropriately. With transparency, it becomes more difficult to keep corporate wrongdoings secret.

The key strategic question: How do we build in affordable sustainability that will best enhance the lasting profitability of this firm and its critical supply chains?

Transparency involves not only reporting to stakeholders, but also actively engaging them. Firms can effectively use stakeholder feedback to modify operations and make them more sustainable. This input also enhances supply chain processes. When Timberland was attacked by several thousand angry Greenpeace activists about sourcing leather from burned-out sections of Amazon rain forest, they were forced to examine their supply chain in great detail.[4] Timberland discovered blind spots in their sourcing practices and took appropriate action to address the situation. Their transparent, honest presentation of their new sourcing processes defused a serious problem with their customer base.

Transparency can be improved through better coordination both vertically in the supply chain and horizontally across networks. For example, common auditing procedures shared throughout an industry can allow a single, effective supplier sustainability audit to be performed. This increases transparency and supplier sustainability while lowering transaction costs for both the supplier and the multiple buying organizations doing business with that supplier. To cite one prominent example, Nike instituted transparency practices throughout its contract manufacturers to ensure greater collaboration and reinforce remediation practices throughout the industry.

Finally, by illuminating blind spots, transparency in the supply chain can reduce risk (our next topic) and smooth out bottlenecks. The bottom line: Transparency typically reduces costs.

RISK MANAGEMENT: Removing the "Blind Spots"

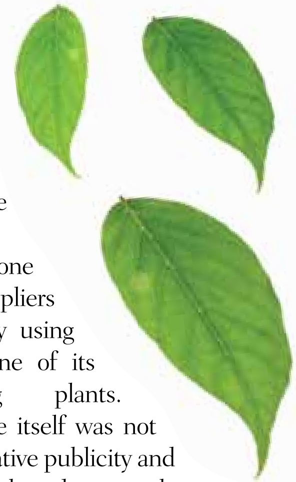
While many folks like to believe in disintermediation, the reality is that as a supply chain matures it becomes more complex as the number of suppliers of both products and services generally increases. Managing the costs and profitability elements of a complex supply chain is difficult enough. It gets even tougher when the sustainability elements are thrown into the complex mix of suppliers. Much of the supply base in many supply chains are in countries where environmental and social regulations are less stringent (or sometimes completely ignored). Therefore, the firm whose name is on the product and its retailers vigilantly ensure that all of the suppliers are acting in socially responsible manner.

In a recent study, IBM found risk management to be the second greatest threat to global supply chains after lack of supply chain visibility.[5] In fact, one could look at the entire discipline of SCM in a risk management context. An argument can be made that supply chain visibility is actually part of a risk management strategy. Part of a good risk management strategy is to reduce "blind spots" in the supply chain and work to avoid supply disruptions.

In September 2011, Apple was accused of using suppliers with poor environmental records and taking "advantage of the loopholes in developing countries' environmental management systems."[6] The accusers were five different China-based nongovernmental organizations (NGOs). They claimed that Apple suppliers—not Apple itself—were guilty of environmental negligence.

Whether they are eventually proven to be true or not, accusations like these can damage a firm's reputation. Companies like Apple do not directly manufacture anything. They rely on a complex web of multi-tiered suppliers that stretch far beyond their home country borders. This makes the job of ensuring quality processes and products much more difficult. And, where there are ad hoc regulators such as NGOs in addition to the governmental regulations, managing a supply chain in a sustainable manner becomes problematic without a strategic risk management plan. Managing a supply base is analogous to tending a garden. You cannot just harvest. Rather, you have to sow the seed properly and tend to your supply chains' products and processes every day.

Risk management also includes contingency plan-



ning for supply chain events such as product recalls or end-of-life product disposition. In the United States, for example, several states are developing "e-waste" laws that govern end-of-life disposition for consumer electronic products. These laws, which carry large penalties for inappropriate disposal of items such as computers and monitors, are currently being written and refined. In parallel with this development, companies are trying to adjust their reverse logistics operations to ameliorate the increased risk of improper disposal.

Sometimes, it's necessary to take a proactive stance with suppliers and customers. For example, a firm may have to manage forward in the supply chain to manage risk In Europe there have been producer takeback laws in place for many years that make manufacturers responsible for products at the end of their lifecycle. For example, if a BMW is discovered at the bottom of the Rhine River, the automaker can be found responsible for the cost of removing the vehicle and any environmental damages caused. At the time of this writing there is no federal standard in the United States for e-waste. In any case, having to comply with federal regulations and the regulations of 50 states would prove to be a daunting management task.

Reducing "headline risk" is another part of a risk management strategy. If a firm or one of its suppliers operates unsafely and employees are hurt or killed, that reflects negatively on all of the entities up and down the supply chain. Similarly, unethical behavior in one node of the supply chain tarnishes the reputation of that chain's other members. The customer must examine its own operations and the rest of its supply chain to make certain that operations are safe, business transactions are ethical and beyond reproach—and that they are not going to read about some disastrous moral lapse of theirs in the newspapers.

In 1989, one of Nike's suppliers was reportedly using children in one of its manufacturing plants. Although Nike itself was not guilty, the negative publicity and public review lasted a very long time. Nike could argue that they were not guilty, yet their arguments sounded hollow because a member of their supply chain had been acting improperly. Following the incident, Nike changed the way they managed the supply base, so as to make certain the company would never again suffer a similar embarrassment.

Recently, commentators from all over the world have been picking apart Toyota for problems with the braking system in some of their automobiles. For Toyota, the headline risk has been devastating, and has had a clear negative impact on the automaker's sales and profitability. Toyota has gone from being the world's most respected auto company to something much less than that. Sustainability in the 21st century demands managing risk far beyond the banks of a river in Detroit as in the old Ford manufacturing model.

Headline risk reputation is a serious danger to the firm. Problems in and around the supply chain are a likely source for reputational damage. It is difficult to control all the elements of one's own organization; it is even more difficult to manage potential problems at supply chain partners where visibility is limited. This is one reason that companies such as Walmart insist that their suppliers conform to standards. They do not allow suppliers to merely tell them they are operating sustainably. Instead, they expect their supply base to achieve measurable progress on non-financial metrics. Similar to Six Sigma quality programs where conformance to standard with nearly zero tolerance is measured, conformance to sustainability standards makes it more likely that a firm's reputation will not be hurt by inappropriate supplier actions.

Supply Chain-wide Adoption of Sustainability

Once a firm has defined a structure to enable sustainability inside their organization, managers need to think carefully about how to expand that structure across critical links in their critical supply chains. Perseverance is needed here. Because most companies have many suppliers and customers it may be difficult to move to truly sustainable supply chains quickly.

In multi-tiered supply chains, complex networks are the rule. While firms may be asked to manage every link in every supply chain in which they participate, it is nearly impossible to do so. Companies must focus on the linkages that are most critical, and also those that contain the greatest risk. The problem is, almost every node in a supply chain can create great problems if not managed carefully. Infusing transparency and sustainability into the organizational culture can help ease this problem, but key links have to be managed carefully.

Companies have to take a long-term view. In particular, they must consider potential impacts of current activities. For example, most firms build safety into their processes and are careful about managing potential legal liability. Yet they are not always as careful when thinking about the potential costs of current actions on their own future and on the future of their supply chain partners. A risk management structure that addresses this is required. The metrics selected should go beyond simple short-term cost. Measurement structures such as activity-based costing (ABC) and total cost of ownership (TCO) can make management more effective when it comes to longer term issues.

Sustainability should be viewed as a methodology that lets firms create shared value while improving economic conditions internally and across their various supply chains.

To some extent, the "total logistics cost" concept that was introduced in the 1960s can be extended beyond costs that show up on the income statement to include potential future costs. These potential future costs can be discounted to take into consideration time and probability of occurrence. Financial risk management analyses can then be applied to include future environmental and social responsibility costs.

In the early days of the quality movement, many in the supply chain community were skeptical about building in quality to products and processes. They believed that this would increase costs beyond what consumers would be willing to pay. The automotive industry provides a good example. Automakers such as Ford, Toyota, and Honda forced their supply base to adopt new methods of measuring process conformance to specification and product quality. In the beginning, several of the suppliers complained that these new methodologies like TQC and TQM—Total Quality Control and Total Quality Management—were only going to add costs at a time when they were being expected to not raise prices. Within a short time, however, the suppliers that adopted these methodologies generally saw positive results. In some cases, the improvement in process and product quality and the reduction in costs were revolutionary. Those suppliers that were unwilling or unable to adopt these new methods often failed or ended up being acquired by companies that had seen the light.

Thirty years later, large retailers and manufacturers are expecting their supply base to be both environmentally and socially responsible while they are managing costs carefully. These expectations often come from the very top of the organization. For instance, the leadership in companies such as Walmart, Target, Dell, and many others believe that sustainability is necessary. Walmart, for one, says that it has transformed its organization—and to some extent its public perception—around sustainability.

As in the early days of the quality movement, suppliers are often skeptical of the value of sustainability. Many suppliers, in fact, were effectively forced to adopt sustainability initiatives they initially resisted. That resistance overall has diminished in the past few years as suppliers have seen positive results such as lower operating costs. Although suppliers may have balked at the early mandatory programs required by their customers, most now see the potential in sustainability and are looking for new ways to build sustainability into their processes and products.

Sustainability Here to Stay

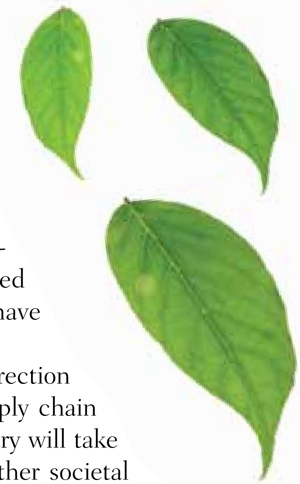
There is much more work to be done around sustainability and the sustainable supply chain. Like quality before it, sustainability is here to stay. As companies around the world increasingly understand what the sustainability concept really means, they embrace it for themselves and for their supply chain partners. The reality is that sustainability cannot be ignored for very long if a company wants to be successful. Increasingly, companies are going to be asked to be sustainable and to incorporate sustainable ideas up and down their supply chain.

One of the clear lessons from the last few years is that sustainability is not a passing fad. It is a set of concepts and structures that will be built into successful supply chains around the world. A basic premise of sustainability is doing more with less. That is a philosophy that business must pursue going forward.

Thinking environmentally and using fewer resources can also lower costs in both the short-run and long-run.

Companies should not think of sustainability as a set of trade-offs between financial gain and environmental and social responsibility. Rather, sustainability should be viewed as a methodology that lets firms create shared value while improving economic conditions internally and across their various supply chains. It is clear that where sustainability issues are concerned nongovernmental organizations are going to be a continuing part of management's peripheral vision for a long time to come. Companies cannot dismiss NGOs as being irrelevant. In a culture where there are hundreds of cable channels and millions of websites, firms are being forced to listen to opinions that could not have been heard just a few years ago.

Companies need to move in the direction of creating shared value between supply chain partners. It is likely that private industry will take the lead in bringing businesses and other societal elements together. The real leaders around the world are not necessarily political. They are business people that have put together a successful supply chain. Supply chain leaders need to develop principles of shared value that produce financial gain while also creating value for society. As Michael Porter and Mark Kramer said in their *Harvard Business Review* article, creating shared value is "not on the margin of what companies do, but at the center."[7] Creating shared value around sustainability may well be the impetus for the next major transformation of business thinking.



End Notes

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